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**A CRITICAL ANALYSIS OF ACTIONS TAKEN UPON HISTORIC MUSICAL  
INSTRUMENTS THROUGH THE PERIOD OF THE EARLY MUSIC REVIVAL  
FROM THE BEGINNING OF THE 20th CENTURY TO THE 1990s**

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in candidature for the degree of Doctor of Philosophy

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15 April 1999

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## ABBREVIATIONS

CAPC	Canadian Association of Professional Conservators
CCFCS	Canadian Centre for Folk Culture Studies
CCI	Canadian Conservation Institute
CIMCIM	<i>Comité international des musées et collections d'instruments de musique</i>
FoMRHI	Fellowship of Makers and Researchers of Historic Instruments
GCI	Getty Conservation Institute
HMSOHer (or His)	Majesty's Stationery Office
ICOM	International Council of Museums
ICOMOS	International Council on Monuments and Sites
IIC	International Institute for Conservation
IIC-AG	International Institute for Conservation -- American Group
IIC-CG	International Institute for Conservation -- Canadian Group
MGC	Museums & Galleries Commission
OED	Oxford English Dictionary
UKIC	United Kingdom Institute for Conservation

## NOMENCLATURE

The American National Standard system of pitch notation is used. Middle C is C<sub>4</sub> and A<sub>4</sub> is 440Hz.

## LIMITATIONS OF THESIS

The critical analysis presented in this thesis is restricted to the case studies of nine historic musical instruments (comprising three sets of three). During the research for this work a great quantity of data on social and technical transactions with historic instruments, documentary sources directly relevant to those case studies, and other more broadly based primary and secondary sources of a contextual nature, were accumulated, but it was not possible within the limited scope of this work to include it all. The nine case studies presented here were selected for the abundance of their documentation, resulting in their ability to demonstrate the analytical technique employed, and to prove its effectiveness. Nevertheless, the conclusions drawn from analysis of this limited set of data hold true for the remaining material.

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## INTRODUCTION

### **i The Polemic: To Play or to Preserve**

What cannot be illustrated is [the clavichord's] greatest beauty... its sound. Indeed, in many museums this would remain unknown, for it is a common policy among museums today that instruments should never be heard, never be used.<sup>1</sup>

This quotation illustrates a tension between the philosophies of restoration and preservation of historic musical instruments. Extreme views on the necessity to restore and refurbish culturally significant instruments for didactic, experimental and aesthetic purposes are matched by equally strong views on the need to preserve them from craft intervention through the application of conservation policies.<sup>2</sup>

This tension has been the source of much discussion in the literature over the last three decades, but no systematic study of the underlying causes of the tension between playing and preservation has previously been attempted. This is largely due to specialization among practitioners and a compartmentalization of efforts, which have caused a distancing of views proceeding to the point that hardened positions often preclude constructive dialectic. In an attempt to address this, a framework has been devised to allow systematic critical analysis of the actions and their rationales, and to provide a context for them. It is intended that critical analyses of the context of treating historic instruments, and of the results of preserving them in a non-functional state, will help address the dilemma currently facing their users and those entrusted with their care.



The research concentrates on actions taken on musical instruments between the beginning of the 20th century and the 1990s, a period that encompasses the rise and increasing popularity of the early music revival. This period is chosen because it is then that the tension between the desire to play historic instruments for exploratory purposes, and the need to preserve them unused as a source of technical information, becomes a focus of contention. Increasing craft activity on early musical instruments during this period is matched by a rising sense of their cultural worth as a diminishing information resource. Although attention is generally concentrated on activities in this period, the earlier histories of the musical instruments under study are also examined where this information bears upon analysis of their treatment.

The study is limited to instruments of the Western musical tradition made between the renaissance and the 20th century, and which became the focus of attention during the early music revival. Instruments from collections in Canada and England provide the source material. In all, 19 potential case studies were examined for their utility in this work, and nine which provided the most documentary detail were finally selected. It will be noticed that the majority of instruments in the resultant set of case studies are keyboards. Three factors account for this: they are polyphonic instruments for which a wide and representative repertory of music was written, they are readily adaptable to changes in musical fashion by the removal or addition of components, and their mechanical complexity and comparative sensitivity ensure that continual craft input will be necessary to keep them in working condition. All these factors combine to ensure that action on such instruments will become documented and thus be amenable to future analysis.

---

## ii The Early Music Revival

The contextual reassessment of early music gained momentum in the last decades of the 19th century, particularly in England under the efforts of such pioneers as Arnold Dolmetsch, Francis Galpin, Edmund Fellowes, and others. Galpin's book *Old English Instruments of Music* (1910) was particularly influential, while Arnold Dolmetsch is credited with a seminal role through his research, teaching and instrument-making. Robert Donington and Marco Pallis, both second generation students of Dolmetsch, provide personal surveys of developments in early music scholarship and practice, and biographies of the personalities who drove them, and both place Dolmetsch in a category apart, and assign to him the genesis of the rediscovery.<sup>3</sup>

Many others, like Benton Fletcher who made his house 'the real London centre of all this kind of music [...] open to professionals as well as amateurs, for practice and performance', were active before the Second World War.<sup>4</sup> Ralph Kirkpatrick was another, who began his lifelong association with the harpsichord at this period.<sup>5</sup> Meanwhile on the Continent a fresh approach to early music was seen in Nadia Boulanger's treatments of the works of Renaissance and Baroque composers, and in the keyboard performances of Wanda Landowska.<sup>6</sup> In Brussels Safford Cape had organized the Pro Musica Antiqua in the 1930s.<sup>7</sup>

Nevertheless, in spite of the activities of these individuals, and many others, scholarly studies and practical experiments in early music and musical instruments remained 'the domain of

eccentrics and cranks' until almost the 1960s.<sup>8</sup> In introducing the first volume of *Early Music* in 1973, editor J.M. Thomson observed that:

Ten years ago a journal such as this would have been impossible: there were then no early music consorts such as those whose reputation now begins to reverberate beyond these shores. [...] Now all is mysteriously changed.<sup>9</sup>

The change occurred, as Thomson wrote ten years after the passage quoted above, 'when a number of tributaries were joining together to form that full flood of activity in every field that characterised the 1970s'.<sup>10</sup> Thomson was not strictly correct in stating that 'there were then no early music consorts' in 1963 (i.e. ten years before his editorial). The formation in 1958 of Musica Reservata by Michael Morrow, John Beckett, and John Sothcott formalized an association that was already some years old, and the resultant ensemble was largely responsible for the upswing in popularity of early music at that time.<sup>11</sup> The group's redefinition of the contemporary perception of mediaeval and renaissance music resulted in an immediate appeal to wider audiences. A later commentator on the career of Musica Reservata wrote that 'in the 1950's even the keenest music lover thought of [mediaeval and renaissance] sounds in terms of genteel balladry and the simplistic harmonies of monastery chants'.<sup>12</sup> Reviews of Musica Reservata's concerts indicate the extent of change in perception, which is evident in a distinct break with the hegemony of mainstream music practice. For example, under the title 'Renaissance top of the pops' a reviewer stated that 'it is with the world of the top 20 rather than with that of operas and symphonies that this music must be compared'.<sup>13</sup> Along with the increasing popularity of Musica Reservata's brand of music are implications of a wide, but very diverse appeal: 'The size and enthusiasm of the audience, as pop and jazz fans, orientlists and *avante gardistes* rubbed shoulders with

antiquarians, students, teachers and even businessmen with their clients, showed just how far the medieval and renaissance revival has progressed.’<sup>14</sup>

According to one critic, mediaeval music came to have a ‘novelty value [...] and it provides a sharp antidote to the too ready acceptance, and the too extensive application, of values which arise from a romantic aesthetic’.<sup>15</sup> This was a break with a hitherto almost universal canon of classical music practice, and the early music revival gradually supplanted this canon with one of its own. This trend becomes known as the ‘early music movement’ and is generally classed with the many radical movements whose role was to challenge establishment values in the 1960s, and which came to characterize the social changes of that period. While commenting upon the early music scene of the 1960s and 1970s, Robert Morgan summarizes the social context:

The authenticity movement, as well as other manifestations of the contemporary music and art scene [...] are reflections of what might be described as a cultural identity crisis. Indeed, viewed in the broadest context, the movement can be understood as part of a more general crisis of identity characterizing modernity as a whole. It betrays both the self-consciousness and the sense of personal inadequacy endemic in an ever more complex and puzzling world.<sup>16</sup>

Further popularization of early music was brought about by the energetic work of a group of performer/scholars, among whom were David Munrow, Thomas Binkley and Noah Greenberg.<sup>17</sup> It was artists like these, and many others whom it is impossible to name in this short survey, who brought mediaeval and renaissance music to mass audiences through both concerts and recordings.

### **iii The Impact on Historic Musical Instruments**

The sudden upswing in the popularity of mediaeval and early renaissance music had no initial impact on the demand for historic musical instruments upon which to perform, because to a large extent there were few, if any, extant examples from these early periods. Its main stimulation was to the musical instrument-making industry. However, an inevitable outcome of the revival was the exploration and popularization of the music of the high renaissance and baroque, and later even the classical and romantic eras, causing demands upon extant historic musical instruments. Authenticity in musical practice, in the form in which it was then articulated, required the use of either instruments contemporary with the music to be played, or copies of them.<sup>18</sup>

Demands upon historic instrument resources resulted in ‘more and more instruments [...] being taken out of their cases and played’, while ‘decaying relics’ were brought back into playing condition.<sup>19</sup> It is estimated, for example, that of the 4,000 historic keyboard instruments in collections in the United Kingdom, only 40 now remain in ‘original’ condition.<sup>20</sup> The demand for playable historic instruments was met by musical instrument makers and restorers who were largely working within a craft-based tradition with long antecedents. As keyboard instrument conservator John Watson has stated:

The damage caused by playing antique instruments is often preceded by much greater damage wrought by restorers. Restoration has often been carried out by traditional repair, maintenance, and even modernization procedures involving replacement of any worn or damaged material [...] that might stand in the way of musical objectives.<sup>21</sup>

Watson is making an extremely important distinction in alluding to two very distinct kinds of action. Playing of those antique instruments still in working condition involves continued maintenance, with the potential loss of parts by wear. This is very different in essence from the other kind of action, which involves the return of degraded and obsolete instruments to working condition.

An insight into the way in which late 18th-century square pianos were regarded in the 1970s is provided by restorer and instrument-maker Derek Adlam. In his opinion they are:

A very good class of instrument on which to cut one's teeth, because the best of them are marvellous pieces of craftsmanship, beautifully put together. They can be excellent musical instruments, eminently restorable, but are not usually irreplaceable antiques. So, if one does need to use such instruments for experiment, one does not run the risk of wrecking a very precious work of art.<sup>22</sup>

Thus, once the revival of early music came to the forefront, the craft techniques traditionally employed in the on-going maintenance, repair and improvement of working musical instruments, were co-opted to support the aspirations of historical research, musicology and performance practice. The quotation above indicates the adaptation necessary to make the traditional craft practice serviceable in its new role. The craft tradition therefore became driven by values very different from those of its practitioners. The profound physical changes to historic musical instruments at the hands of craftspeople as a result of these new values, were in turn not always fully appreciated by those driving these changes. A phenomenon that will be explored later is the 'silent artisan', where the values, goals and achievements of practice are articulated not by the providers of the service, the agents of change, but by the recipients, the users of the musical instruments. Arguments against use of an historic instrument, which can result in potential loss or compromise of the technical and historical

information embodied in its construction, are countered by demands for function as a generator of musical experience. Thus, by causing a craft tradition associated with maintenance and repair of current instruments to be co-opted into the restoration of historic objects, the early music revival forced to the forefront the essential dichotomy between playing and preserving.

#### **iv The Sources of Tension**

The sound they can produce is the primary aesthetic component of most musical instruments, and the reason why they were made. Thus there is always pressure from collectors and musical instrument-makers, the general public, and from many museum staff to restore them to playing condition so that their musical qualities can be appreciated.<sup>23</sup>

The pressure to establish and maintain working condition in order to exploit the instrument's musical potential, against the counsel of those who argue for non-working state, results in tension. The sources of this tension reside in three features that historic musical instruments as functional<sup>24</sup> objects exhibit to a marked degree: the intensity of interaction between them and their users, the strong aesthetic, philosophical, and historical basis to their study and use, and the fragile and transient nature of their materials of fabrication.

Firstly, instruments are components in a highly interactive relationship. In her studies on the acoustics of bowed string instruments, Carleen Maley Hutchins describes the highly complex 'human communication chain of composer-player-instrument-listener'.<sup>25</sup> (She omits the instrument maker/restorer because her studies concentrate upon the acoustics of given instruments, and not upon design and alteration.) The system therefore becomes yet more complex when the maker/restorer and changes to the instrument are added to the dynamic of

this communication chain. The return of historic instruments to playing condition, and their maintenance in that state, require continuing input from a system that has strong aesthetic, subjective components. Perhaps of all artifacts, historic instruments exhibit the most subtle, changeable and complex dynamic which, in consequence, is not easily susceptible of analysis by the scientific method.<sup>26</sup> The measures taken to ensure working state cannot therefore be understood in purely metric terms, thus causing contention between those with an objective bias, who would preserve the existing state, and those more inclined to exploit subjective aspects, who would demand changes to elicit the best musical performance from the instrument.

Secondly, historic instruments provide signifiers to aesthetic and historical experiences connected with makers, previous owners and users, and earlier periods of music practice. The evocative quality of a genuine historic musical instrument in providing an emotional bridge to earlier music practice is a key ingredient in the desire to reinstate playing condition. The following quotation epitomises the attitude towards silent instruments in museum collections:

South Kensington looks upon virginals, harpsichord, clavichord, lute as articles of vertu [*sic*] or curiosity; Mr. Arnold Dolmetsch looks upon them as musical instruments which have been ignorantly deposed from their sovereignty over the emotions.<sup>27</sup>

Exclusion, on the grounds of preservation, of the possibilities for exploiting the aesthetic, subjective component embodied in the sound and action of instruments causes contention, difference of opinion, and dispute.

Thirdly, because musical instruments are functioning artifacts, their materials of fabrication are susceptible to wear and damage with use. Also, for purposes of resonance and portability,



instruments are often made of light and fragile materials prone to degradation. Those instruments not in working condition must be brought back by craft intervention, and those still in working condition must be maintained in that state. Bringing a derelict instrument back into working condition, or maintaining a functioning one, requires removal and substitution of parts, and alteration of others. These processes are a source of tension between the philosophies of musical use and static preservation.

The tension caused by these factors has resulted, in recent decades, in the development of distinct factions, each with its own adherents and sets of values. In discussing the methodology of assessing valuations and beliefs, social theorist Gunnar Myrdal indicates that this development is relatively recent:

The feeling of a need for logical consistency within the hierarchy of moral valuations [...] is, in its modern intensity, a rather new phenomenon. With less mobility, less intellectual communication, and less public discussion, there was in previous generations less exposure to one another's valuation conflicts.<sup>28</sup>

This suggestion is in line with the evidence of growing factions with differing value systems since the 1950s. The formation of such factions is discussed by social psychologist Leon Festinger. He describes three basic strategies that people employ for reducing cognitive dissonance, or the discomfort occasioned by differences of valuation: 'behaviour changes, changes of cognition, and circumspect exposure to new information or new opinions'.<sup>29</sup>

Festinger argues that the third strategy, 'circumspect exposure to new information or new opinions', is largely responsible for the gravitation of like-minded individuals into groups.<sup>30</sup> He discusses the role of the social group as a major vehicle for the reduction or elimination of cognitive dissonance, and argues that 'the larger the number of people that one knows already agree with a given opinion [...] the less will be the magnitude of the dissonance introduced by

some other person's expression of disagreement'.<sup>31</sup> The results of such a social process can be seen in the hardened positions evident at the present time within the historic musical instrument field.

## **v A New Context for Craft Activity**

The tension between use and preservation implies the existence of two opposing philosophies, and this is the way it is most often expressed in the literature. Three authors pose the question: 'to play or to preserve?'<sup>32</sup>, another provides two courses of action with 'a claim to use, an obligation to preserve'<sup>33</sup>, and a fourth, in the field of non-musical museum objects, sees conservation or restoration as the only choices offered.<sup>34</sup> Museum curator Jeremy Montagu amplifies upon this view by stating, in the case of a square piano by Adam Beyer dating from 1779, that 'neither restoration nor conservation has ever been necessary', thus alluding to the existence of two separate, distinguishable categories of treatment.<sup>35</sup>

However, it will be shown that such a bi-polar tension between playing and preservation is a societal construct, based only upon a reading of actions taken upon musical instruments, rather than an understanding of underlying rationales. Action superimposed upon the archetypal musical instrument craft activity can, in fact, be divided into three distinct regimens, depending upon the philosophical underpinning of the activity. These regimens are termed Currency, Restitution, and Preservation in this study, and each is characterized by specific sets of unique values.

By presenting this model of craft activity, and by analysing critically not just the actions, but specifically the rationales, within each regimen, a new elucidation of motives between the desire for musical function and the preservation of documentary value is derived. This results in a reasoned and fully conscious decision-making process, in which arguments for preservation or musical function are not obscured or deflected by false assumptions or flawed rationales.

## NOTES

1. Montagu, 'Clavichord', p. 34.
2. The term 'conservation' is defined in Chapter 6.
3. Pallis, pp. 41-45; and Donington, 'Why', pp. 42-45.
4. Waitzman, 'Ancient Musicland', p. 18.
5. Kirkpatrick, pp. 31-41.
6. Cohen, pp. 24-27.
7. Cohen, p. 27.
8. Waitzman, 'Ancient Musicland', p. 17.
9. Thomson, 'Editorial 1973', p. 1.
10. Thomson, 'Editorial 1983', p. 2.
11. Musica Reservata scrapbook, p. 1. This is a compilation of press cuttings and other material from c.1960 to c.1975 assembled by The British Council. It was kindly lent to the author by Dr. Trevor Herbert of the Open University.
12. Sommerich, P., *Express and News*, London, 6 December 1974, p. 17.
13. 'R.M.', 'Renaissance top of the pops', *The Times*, London, 4 July 1967.
14. Dobbins, F., 'Medieval Music', *The Financial Times*, London, 19 May 1971.

15. Sadie, S., 'Medieval vigour and intricacy', *The Times*, London, 16 September 1968.
16. Morgan, p. 78.
17. Cohen, pp. 30-45.
18. Donington, for example, provides extensive information on the instrumental requirements of early music (Donington, *Interpretation*, p. 501).
19. Haskell, p. 24.
20. Arnold-Forster and La Rue, p. 25.
21. Watson, p. 73.
22. Schott, p. 371.
23. Odell and Karp, p. 1.
24. The term 'functional' is defined in Chapter 1.
25. Hutchins, p. 4.
26. The scientific method is defined here as a process of experimentation carried out by a neutral methodical observer upon an external object of study.
27. Campbell, p. 126.
28. Myrdal, p. 1030.
29. Festinger, p. 31.
30. *ibid.*
31. Festinger, p. 179.
32. O'Brien, 'Conservation', pp. 291-297; Montagu, 'Clavichord', pp. 34-36; and Pollens, p. 40 et seq.
33. Watson, pp. 69-82.
34. Monger, pp. 375-380.
35. Montagu, 'Clavichord', p. 36.

## **CHAPTER ONE - THE HISTORIC INSTRUMENT**

Old musical instruments in both museum collections and private ownership are referred to as 'historic' in order to emphasise their cultural value, and to differentiate them from newly-made instruments. This chapter explores the social transactions through which instruments become historic. A framework is then outlined in which treatment actions upon historic instruments can be critically analysed. The chapter closes with an introduction to the genesis and development of three distinct regimens into which actions upon musical instruments are placed.

### **1.1 DEFINING THE HISTORIC INSTRUMENT**

Musical instruments pass through certain well defined states of existence, and within these states certain categories of action, directed by cultural attitudes and social circumstances, can be identified. It will be shown that the historic musical instrument is a functioning object that exists in a specific social category, which will be identified as 'singularized'.

#### **1.1.1 Singularization**

Like all other artefacts, musical instruments are commodities; the process of commodification is conferred upon them as a result of their manufacture to suit a specific need. From the economic point of view a commodity is an item that has a value related to its

use, but also has value as an item of exchange. In his examination of the cultural biographies of objects, Igor Kopytoff states that:

From a cultural perspective, the production of commodities is also a cultural and cognitive process: commodities must be not only be produced materially as things, but also culturally marked as being a certain kind of thing.<sup>1</sup>

Kopytoff discusses the social transaction of singularization which is a cultural response to excessive commodification. He enlists Durkheim's view that society needs to set apart some portion of objects, or commodities, as 'sacred' and that 'culture ensures that some things remain unambiguously singular'.<sup>2</sup> In a state society such objects may belong to the 'symbolic inventory of a society: public lands, monuments, state art collections' and so on.<sup>3</sup>

Initially, therefore, there are two well-established categories in which man-made objects reside -- commodity and singularity -- and these are defined by the social transactions that take place between them. An object is never perceived or valued in its pure form but is always embedded in its culture, and culturally marked by cognition. As will be shown, all the musical instruments under study here are categorized as singularized.

Thompson's work, *Rubbish Theory: the creation and destruction of value*, has provided new insights into social transactions from the point of view of the collector and connoisseur. He argues that artifactual commodities are generally assigned to the categories of transient or durable, both of which exist in a region of fixed assumptions where world view precedes societal action. The object's value -- monetary, aesthetic and cultural -- in both these categories is clearly circumscribed, and society's action towards it is therefore predetermined.<sup>4</sup> A transient object is one whose value is falling. It is a utensil which is in the

process of being used up, and at some stage its value, both monetarily and culturally, will become zero. A durable object, on the other hand, is one that has been assigned aesthetic, monetary or other values by society, and these values are either stable or increasing. It is an object that has been singularized.

### **1.1.2 Function**

Musical instruments are defined here as functioning objects, a class of artifacts upon which work must be performed before full interpretation can be achieved.<sup>5</sup> The status conferred upon the functioning object contrasts with that of the class of static historic objects in which full interpretation may be achieved contemplatively by a process that has been described elsewhere as ‘impact, scrutiny, recollection and renewal’.<sup>6</sup>

Both Kopytoff and Thompson use motor cars to illustrate the social transactions that may take place around a complicated functioning artifact subjected to intricate and varied interventions, but while Thompson uses the example of the car to illustrate only variations in market value, Kopytoff demonstrates the diversity of potential biographies such an artifact may encourage.<sup>7</sup> In both cases the significance of the choice of the car lies with the combination of its intricacy of operation and its social symbolism. Because it is both a functioning machine kept in working condition by technical intervention, and a focus for social transactions, it carries information of both technical and social value. Their examples, using a car for demonstration, could have been centred equally well upon musical instruments because, like motor cars, they are supplied from the manufacturer in new

condition, must be brought into a working state by their owners, and are then serviced, adapted, repaired and altered to suit the exigencies of continuing use.

Two initial categories in the life of a musical instrument can be defined:

- the primary category when it was in new, unused condition
- the functioning category, when it began to be used in the performance of music

The primary category is the first stage of a musical instrument's existence, and it occupies the time between the completion of manufacture and the instrument's first use. The transition between this category and the next is marked by the 'playing-in' of the instrument, and can be likened to the 'running in' period of a new car. This is the period in the object's existence when all adjustments and changes are made, either by the first user or by a technician under his instruction, and when irreversible changes contingent upon use occur. The primary category can therefore be defined as the condition in which a musical instrument left its maker, and before it was put into a working state by technical intervention.

Implicit in the term 'functioning' is the assumption that the newly made object must be brought into a working state and maintained there. All functioning instruments must have passed through the primary category, but those resting in it are rare; it is far more likely that an instrument will have been used and thus be in what has been defined elsewhere as the 'original state'.<sup>8</sup> In describing certain artifacts in transport and technical museums that were acquired new from their manufacturers, industrial artifact historian George Monger, says that:



The only truly original mechanical objects to be found in museums are those either direct from the makers or which were used, found to be inefficient and not worth adapting, and discarded.<sup>9</sup>

However, Monger does not distinguish between the state before use and the state after use; 'direct from the makers' indicates an object in the primary category, while 'used and discarded' indicates an object in the functioning category. The clear distinction that must be made between the two lies in the potential for the user to form a judgement of the object's function. In the case of a musical instrument, its musical quality cannot be judged in its primary state; it can only be assessed at this stage in terms of craftsmanship, visual aesthetics, and other non-auditory or tactile values. Any assessment of an instrument's musical quality pre-supposes its having passed out of the primary and into the functioning category.

The transition from primary to functioning marks the beginning of a musical instrument's working life. If the instrument commences its life anonymous and unremarked it will continue this existence as a transient utensil of falling value. However, should its value become reassessed by society, its social category will change. It will become singularized. As Thompson's entire thesis demonstrates, category transfers from transient to durable take place under a complex and interacting socially-driven control mechanism.<sup>10</sup>

Within the functioning category there may be numerous states as the instrument is adapted, refined, converted, and restored. The category in which an instrument is placed is decided by its condition and through analysis of its documentation, but a fuller picture emerges during transitions from one category and the next. It is at such turning points that actions, based upon rationales, become clear.

### 1.1.3 The Transition to Historic

Musical instruments can become valued or singularized by social transaction, and will then belong to the category of durable artifacts with stable or rising value. The term 'historic' has been applied traditionally to instruments that satisfy this criterion. While defining a standard usage of the words 'historic' and 'historical', Myers observes that:

Instruments are not historic solely by connection with the famous or infamous, but by their own contribution to the history of music. Indeed, a museum instrument has only to be mentioned in a published catalogue written with historical purpose to be a historic musical instrument.<sup>11</sup>

Thus, the act of documenting an otherwise unremarkable instrument will, of itself, singularize the instrument, initiating the social transfer from transient to durable.

Furthermore, musical museum curator Cary Karp has argued for a broadening of the traditional museum attitudes to what is considered an historic musical instrument:

Period material now includes virtually all instruments not in current production. A vintage instrument from the 1930s is as likely to be entrusted to a museum conservator as to a commercial repairperson. Similar conditions apply, for example, to synthesizers that are only a few years old, no longer in production, and clearly significant to the history of electronic instruments. It is no longer possible to define the importance of an instrument simply in terms of its age.<sup>12</sup>

According to Myers and Karp an instrument may be designated as historic by the application of any one of an open-ended list of cultural markers relating to such features as age, ownership, antiquity, beauty, uniqueness, and historical and monetary value. In the case studies that form the central part of this work, this broad definition of what constitutes an historic instrument has been adopted: Steinway pianos from the 1930s and 40s, are included with musical instruments from the 17th to 19th centuries. The key operation that causes an instrument to become singularized (i.e. historic) is the process of documentation.

To achieve the status of historic an instrument need not pass from the primary state to the functioning state, although if it were preserved in the primary state nothing could be deduced of its musical aspects. It would be valued for attributes other than those associated with its musical function.

## **1.2 CATEGORIZING THE INSTRUMENT'S USE**

As noted in the Introduction to this work, the tension between playing and preservation is traditionally represented as bi-polar; restoration and conservation are the two poles about which activity is focussed. It will be argued later that this traditional model is based upon a polarization of class, which can be perceived historically in a tension between the person who performs work upon a musical instrument and the person who commissions the work. It will be shown that this tension is now continued unconsciously in treatment actions, and that the premises upon which it is based are philosophically unsound.

In order to analyse critically actions taken upon historic musical instruments a new model of behaviour is required, so that the rationales behind the actions can be explored dispassionately, and so that distinctions between types of craft activity can be clarified. To this end, a framework containing all possible actions has been developed in which the functioning category is subdivided into three regimens of activity, which are defined here as Currency, Restitution, and Preservation. These terms, as used in this context of this work, are defined in detail in Chapters 4, 5 and 6. They are briefly introduced here as follows:

- Currency: the instrument continues in use, being maintained in working condition, and adapted to suit changes in musical fashion. Instruments in this regimen are already in working condition, and craft action upon them is *maintenance*.
- Restitution: the instrument is 'returned to' and maintained in a state that is assumed to represent some previous period of its existence.<sup>13</sup> Instruments in this regimen are obsolete and in degraded condition, and craft action upon them is *restoration followed by maintenance*.
- Preservation: the current state of the instrument is respected, and it is preserved from further intervention. Instruments in this regimen are kept in a non-playing state, and action upon them is described as *conservation treatment*.

The distinction between maintaining an already working instrument, and returning a degraded one to working condition is critical in determining to which of the first two regimens the action is assigned. Action within each of these regimens is circumscribed by certain associated values and attitudes. When historic instruments are treated, the underlying craft tradition is informed by the sets of values associated with the backgrounds of its practitioners in their time, place and circumstances. For example, if an historic instrument is to be kept in a working state, the values appropriate to that action will predominate. If it is to be restored to some postulated previous state, a second set of values will apply. A third set of values comes into play if the instrument is to be preserved in a non-playing state. Thus, the social framework within which the person who decides upon the manner and level of treatment lives and works will circumscribe the limits and types of action taken upon the instrument.

It is important to make a very clear distinction between craft practice as applied to transient, non-singularized musical instruments, and the same applied to those that have been singularized and are considered historic. Work done upon transient instruments that are used as utensils and have falling, and eventually zero, value will be a matter of routine, will require little contemplation, and will go unremarked. However, when the same practice is applied to those instruments categorized here as historic, action is underscored and directed by rationales connected with unique sets of values. These values arise from the social contexts of those who perform or direct the work. It is only when the treatment of the instrument is done with a clear knowledge of its historical context, cultural worth, and aesthetic value, that action can be said to take place within the regimens of Currency, Restitution or Preservation. All three regimens encompass only deliberate treatment of historic objects, and must be clearly distinguished from the underlying, straightforward craft tradition which is encountered in the routine bench treatment of unremarkable musical instruments. Action, in the latter case, is driven by none of the rationales encountered in the treatment of historic instruments.

### **1.3 SUMMARY**

Historic musical instruments are those that have been singularized by social transaction. They are categorized as functioning objects because work must be performed upon them in order to achieve their full interpretation. Action upon historic instruments falls into one of three regimens -- Currency, Restitution or Preservation -- depending upon the values and attitudes of those interacting with the instruments. The regimen in which an instrument is assigned is

not a function of its condition or state, but is dictated by the social transactions surrounding it. These regimens each exhibit characteristic values related to the beliefs and aspirations of those who adhere to them. The historical development of these regimens, and the basic features that characterize them, are examined in detail in Chapters 4, 5 and 6.

Although the function of the framework defined in this work is primarily heuristic -- as a tool to be used in the critical analysis of actions taken on a specific set of historic musical instruments -- it can have a larger application in the study of social interactions with other functional objects.

## NOTES

1. Kopytoff, p. 64.
2. Kopytoff, p. 73.
3. *ibid.*
4. Thompson, *Rubbish Theory*, p. 8.
5. The adjectival form 'functioning' is used here to indicate activity.
6. Clark, p. 57.
7. Kopytoff. p. 68; Thompson, pp. 19-20.
8. Kühn, p. 393. It is necessary to make a distinction between original condition and original state. As materials are continually degrading over time through a variety of natural physical phenomena it is imprecise to refer to original condition, which is irretrievable. Original state, on the other hand, relates to the physical arrangement of the components of an object, and is not subject to change over time by natural causes.
9. Monger, p. 376.
10. Thompson, *Rubbish Theory*, p. 11.

11. Myers, 'Historic', p. 22.
12. Waitzman, et. al., pp. 84-85.
13. The contradiction implied by the statement 'returned to' is explored in Chapter 5.

## CHAPTER TWO - CALENDAR OF SOURCES

This chapter contains a calendar of sources so that actions taken upon the historic musical instruments presented in the case studies can be placed in context during critical analysis. For such analysis to be useful and accurate, the actions people have taken upon the historic musical instruments described in the case studies must be situated in both the period in which the activity took place, and its social context. Not only is it necessary to ascertain what was done to an instrument and under what circumstances, but it is also necessary to examine the prevailing culture of opinion. The intention of this calendar is to provide a chronology against which actions upon specific musical instruments can be placed. The emphasis is not upon the influence these sources may have had on practices current at the time of their formulation, but on the capacity of the sources to reflect the orthodoxies and conflicts of their period.

For each entry the full bibliographic citation or an appropriate descriptor is provided, followed by a brief descriptive paragraph. In these descriptions an attempt is made to address the issues of production, consumption and status -- who produced the source and why, at whom was it directed, and what its status was. Sources relating specifically to the treatment of historic musical instruments are augmented here by sources that relate to the cultural heritage at large. Although this work concentrates primarily upon the period of the early music revival from the beginning of the 20th century to the 1990s, the calendar begins with certain earlier sources that had a formative influence upon thinking in the field of the



preservation of material objects. This is a compendium of sources, presenting a holistic view, and there is no intention to be comprehensive.

**1833** Publication of the English translation of Jacob Augustus Otto's *A Treatise on the Structure and Preservation of the Violin* (London: W. Reeves)

This was the work of a practising maker and repairer of bowed string instruments. It was addressed to the community of violin connoisseurs, but its English translation by Thomas Fardley appeared at a time when the promotion of literacy among the 'mechanic' class was becoming a social concern. The English translation of this work is one of the first publications of a practitioner addressing the craft issues of musical instrument repair and restoration. Otto states that his practical experience is superior to that gained by 'one who merely understands the subject theoretically, or who only imitates the work of another without thinking for himself'.<sup>1</sup> The book was re-issued, and appeared in several editions, throughout the 19th century and became the model for other works of the same genre.

**1854** Publication of the 'First Report on the Department of Practical Art by Henry Cole', in *Addresses of the Superintendents of the Department of Practical Art* (London: National Art Library, Victoria and Albert Museum, 1854), pp. 23-37.

Henry Cole was an enormously influential champion of the utilitarian value of museums through the latter half of the 19th century. His South Kensington Museum became a model for others in both Europe and North America. This report was produced for the information of the governing and funding bodies of public

collections. It promoted the view that the collections of the South Kensington Museum in London were to be 'used physically, taken about and lectured on'.<sup>2</sup> This policy established the role of collections of technical artifacts, that they be kept functional and used didactically for the purpose of mass education.

**1855** A meeting of the London Society of Antiquaries on Thursday 3 May in London.

The Society of Antiquaries was a body of enthusiasts, some professional but most amateur, who were concerned with the study and preservation of antiquities and works of art. The minutes of the Society's meetings were available to a wide readership of members. The meeting referred to in this citation concerned ratification of a memorandum urging preservation of architecture 'from further injuries by time or negligence'.<sup>3</sup> The Society established a 'Conservation Fund' to assist its advocacy in preserving ancient monuments from intervention.

**1857** Publication of John Ruskin's, *The Seven Lamps of Architecture* (New York: Wiley and Halstead, 1857)

Ruskin was a writer on the relationship of art to society, and he espoused the view that the working classes were spiritually impoverished. His books were very influential, and widely read throughout the latter half of the 19th century. His readership was generally the better educated middle and upper classes. In the work cited here, Ruskin articulated the view that restoration of architecture was detrimental; it meant 'the most total destruction which a building can suffer: a

destruction out of which no remnants can be gathered; a destruction accompanied with false description of the thing destroyed'.<sup>4</sup>

**1885** Publication of Edward Heron-Allen's *Violin-making as It Was and Is...* (London: Ward, Lock & Co., 1884; 2<sup>nd</sup> ed. London 1885/R1984)

The extended title of this book describes it as an 'historical, theoretical, and practical treatise on the science and art of violin-making for the use of violin-makers and players, amateur and professional'. It is widely regarded today as the most important work of its period upon the subject.

**1887** Publication of William Morris's, 'The Principles of the Society [for the Protection of Ancient Buildings] as Set Forth upon Its Foundation', *Builder*, 35, 25 August 1887.

William Morris was an artist, poet, socialist thinker and designer. This publication was read by the circle of those concerned with all aspects of architectural work. In it he collaborated with John Ruskin on the production of a manifesto condemning the destructive restoration of buildings. This became the founding document for the Society for the Protection of Ancient Buildings.

**1898** Publication of John Ruskin's *The Stones of Venice*, I (Orpington, Kent: George Allen, 1886)

In this work, Ruskin made use of the pathetic fallacy, which he had formulated in his 1879 publication of *Modern Painters*, to describe the contradictory effects of restoration on the fabric and spirit of old buildings. Originally conceived as a critical

tool in the analysis of poetic works, he deployed it here as an expression of the spirit resident in works of art.

**1899** Publication of William Hepworth's, *Information on Bow Instruments* (London: William Reeves, 1899)

This is the work of a practising artisan. It was intended for the general reading public, including craftsmen and amateurs. In addition to practical information on the care of bowed string instruments, this work is important in highlighting the responsibility incumbent upon owners of historic instruments. Hepworth states that 'it is undoubtedly the moral duty of each generation to transmit to its successor all valuable instruments in as perfect a condition as possible'.<sup>5</sup> He considers that such instruments are 'placed in [the owner's] trust for the benefit of those who succeed him'.<sup>6</sup>

**1902** Publication of the Hill Brothers' book *Antonio Stradivari: His Life and Work* (London: William E. Hill and Sons, 1902)

The Hills came of several generations of violin makers, dealers and restorers, and had accumulated a great deal of historical information through practical commercial transactions. Their book on Antonio Stradivari was intended to disseminate this information to the community of violin connoisseurs. This is a work of practical, historical knowledge which gives short shrift to the romantic associations with which classic violins, particularly those of the Cremona school, had become enmeshed. The book is pragmatic and matter-of-fact.

**1905** Publication of Friedrich Rathgen's *The Preservation of Antiquities*, trans. G. Auden and H. Auden (London: Cambridge University Press, 1905)

Friedrich Rathgen was a chemist employed by the Museum of Archaeology in Berlin. His book was addressed to workers in the very narrow field of the preservation of antiquities. Although focused upon unstable archaeological objects requiring emergency treatment, Rathgen's work in Berlin set the stage for much later experimental work in the preservation and restoration of all antiquities and works of art.

**1908** Publication of a museum catalogue by Carl Engel *Musical Instruments* (London: HMSO, 1908)

Carl Engel was the curator of a collection of musical instruments in London. This publication was a descriptive catalogue of an exhibition, and was widely read by a museum-going public. This work is of particular interest for the historical material included with the descriptions of instruments. It symbolizes the awakening interest in the study of early instruments.

**1910** Publication of Canon Francis Galpin's *Old English Instruments of Music* (London: Methuen, 1910)

Canon Galpin was the quintessential amateur. His collection of early musical instruments was extensive, and his research into their history and function was unique for its time. His book was intended for the general reader, and signals the beginning of an academic legitimacy in the collection and study of early musical instruments.

**1921** Publication of a report by Alexander Scott, *The Cleaning and Restoration of Museum Exhibits* (London: HMSO, 1921)

Alexander Scott was a chemist with the British Government Department of Scientific and Industrial Research. This is the first of three reports on scientific treatment of museum objects commissioned by the British Museum. Subsequent reports appeared in 1923 and 1926. These reports were directed at both technical and lay readers. Significant to this report is the encouragement of scientific treatment not just as a means of preservation, but also as a means of eliciting information from the object.

**1924** Inauguration of the first Haslemere Festival at the Dolmetsch workshop, Haslemere, Surrey.

Arnold Dolmetsch had been active in the revival of early music since the last decade of the 19th century. Once he had established his workshop at Haslemere in Surrey, west of London, it became a centre for early music performance, and the manufacture and restoration of musical instruments. The Haslemere Festivals began the process of popularization of early music by exposing it to a widening circle of enthusiasts.

**1929** Establishment of the Dolmetsch Foundation in Haslemere, Surrey.

The Dolmetsch Foundation came into being under the initiative of W.J.H. Whittall, who initiated the raising of funds for equipping a workshop adjacent to the Dolmetsch property in Haslemere, and to provide training facilities and scholarships in the study of early music.

**1930** An international conference of museum personnel entitled *Conférence internationale pour l'étude des méthodes scientifiques appliquées à l'examen et à la conservation des oeuvres d'art*.

This meeting was held in Rome under the auspices of the League of Nations, and was specifically targeted to museum personnel concerned with the care of artifacts. This was the first international conference on the application of scientific and engineering expertise to the preservation of museum objects.

**1934** Publication of Harold Plenderleith's *The Preservation of Antiquities* (London: Oxford University Press, 1934)

Harold Plenderleith had been appointed as conservation scientist to the British Museum in 1926, an initiative resulting from the work of Alexander Scott, the museum's consultant. This book was directed at personnel concerned with the preservation of museum objects. It outlines procedures for the treatment of objects gained from experiences in the scientific laboratory of the British Museum.

**1946** The inauguration of The Galpin Society in London.

The Galpin Society was formed after the death of Canon Galpin. Founding members were A. Baines, P.A.T. Bate, H. Gough, E. Halfpenny, E. Hunt, G. Rendall and M. Vincent. *The Galpin Society Journal* provided one of the first forums for the scholarly study of early musical instruments. Of particular note to the context of this work are the papers on restoration of instruments which are characterised by an investigative and historical approach.

**1952** The inauguration of the journal *Studies in Conservation*.

This was a journal produced by practitioners responsible for the care and treatment of works of art and artifacts. It was intended specifically for a technical readership and promoted the application of scientific principles to the treatment and examination of art and artifacts. Its appearance and international circulation lent legitimacy to the profession of conservation.

**1956** Publication of the book by Harold Plenderleith and Anthony Werner, *The Conservation of Antiquities and Works of Art* (London: Oxford University Press, 1956)

This was a much expanded and updated handbook, based upon the work by Plenderleith that had appeared in 1934. It was intended for a technical readership. The book is organized on a case study basis and details experiences encountered in the British Museum laboratories.

**1957** Publication of the Weilheimer Regulativ: *Richtlinien zum Schütze alter wertvoller Orgeln: Weilheimer Regulativ: zugleich kurzgefaßter Bericht über die Tagung der Orgeldenkmalpfleger in Weilheim/Teck vom 23. bis 27. April 1957* (Berlin: Verlag Merseburger, 1958)

This publication resulted from a meeting of organ restorers, primarily from German-speaking countries, who had met to formalize guidelines for the more conservative and less invasive treatment of historic organs. It was directed towards organ builders and restorers, and initially had a small and very select readership. Publication of these regulations represents an early instance of the growing consciousness of the need for



preservation and documentation of treatment. These regulations were updated in 1970.<sup>7</sup>

**1960** The publication of John Shortridge's monograph, *Italian Harpsichord Building in the 16th and 17th centuries* (Washington, D.C., US National Museum Bulletin, 225, 1960), pp. 93-107.

John Shortridge was associate curator at the United States National Museum, Smithsonian Institution, where he oversaw the musical instruments of the Hugo Worch Collection. Distribution of his publication by the Smithsonian Institution Press assured a readership beyond the narrow field of historic musical instruments. This paper, the results of examination of 33 instruments in the United States, is a pioneering example of research on the history of musical instrument technology resulting from systematic, scientific documentation.

**1964** A conference in Venice resulting in formulation of *The Venice Charter*.

Architects and building restorers met to formalize a document which laid down guidelines for ethical restoration of buildings. Article 11 of the resultant Charter, adopted by ICOMOS in 1965, states the following:

The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work.<sup>8</sup>

Article 11 is significant for its forward-looking tenor; it underlines the leading place that architectural restoration held in the development and formalization of a conservation consciousness at this period.

**1965** Publication of Frank Hubbard's *Three Centuries of Harpsichord Making* (Cambridge, Mass.: Harvard University Press, 1965)

Frank Hubbard had worked in partnership with William Dowd in harpsichord-making and restoration. This work is an example of research on the history of musical instrument technology resulting from the disassembly and measurement of 'some hundred harpsichords'.<sup>9</sup> It was directed specifically at instrument-makers. It had a landmark status as an unrivalled compendium of information on historical instrument-making practice.

**1967** Publication of a book by Alfred Berner, John Henry van der Meer and Geneviève Thibault, *Preservation and Restoration of Musical Instruments* (Paris: ICOM, 1967)

This book was produced under the aegis of the International Council of Museums, and was intended for museum staff with the responsibility for the care of musical instruments. It lays out fundamental principles for restoration, and in providing guidelines, seeks to regulate restoration practices in collections. The introduction expresses the assumption that restoration to playing condition is the goal of treatment, and that 'where possible the restoration of a deteriorated instrument is commendable'.<sup>10</sup>

**1968** Publication of *The Murray Pease Report: Code of Ethics for Conservators* (New York: New York University, 1968)

This work was produced by the International Institute for Conservation of Historic and Artistic Works -- American Group. It was intended specifically for the organization's members, who were personnel working in conservation, both in museums and in the private sector. It was adopted as a working document by the Institute in 1963. The Code of Ethics lays down guidelines for practice, both commercial and technical. The concept of reversibility is encoded here.

**1968** The inauguration of the journal *Early Music*.

This journal was produced to meet the increasing demands for an international forum for musicological studies. Its readership included performers, scholars, instrument makers and restorers. Of particular interest to this study are the occasional restoration reports, such as that by Adlam on the restoration of a harpsichord by Vaudry, which focus upon knowledge gained upon early workshop techniques and history of construction, as opposed to treatment procedures.<sup>11</sup>

**1971** A conference on restoration of keyboard instruments entitled *Restauratieproblemen van Antwerpse Klavecimbels* in Antwerp, Belgium.

A group of restorers, musicologists and curators met to discuss the problems of restoration of Ruckers keyboard instruments. The proceedings were published by Museum Vleeshuis in 1971. A paper by Skowronek is of interest in outlining the concept of 'authentic ruins' (i.e. unrestored instruments), and their potential as

sources of information.<sup>12</sup> A case study by Lambrechts-Douillez raised the topic of copying as a substitute to restoration.

**1974** A conference entitled 'Restoration of Musical Instruments' in Nuremberg, Germany.

This conference was hosted by the musical instrument restoration laboratory of the Germanisches Nationalmuseum. It attracted conservators and restorers of musical instruments, specifically those working with museum material, and was one of the earliest meetings of its kind. The proceedings were reported in by Montagu in *Early Music*,<sup>13</sup> and papers from the conference were published in 1977 (see below).

**1975** A meeting entitled 'Day of Studies on the Restoration of String Instruments' in Cremona, Italy.

This meeting was hosted by the Committee for the Preservation of the National Stringed-Instrument Heritage. The proceedings were published in 1976. The tenor of the conference is caught by Leonardo Pinzauti, who speaks of intervention 'without presumptuousness, without damaging "personal" discovery, with the prospect of keeping the antique instruments alive, saving, above all, together with their external appearance their more specific playing individuality, their relationship with the present, in short, with the history of music'.<sup>14</sup> In the realm of bowed string instruments, the argument is that preservation and restoration are synonymous, and that instruments are to be preserved from neglect by use. Their playing characteristics are integral.

**1975** The inauguration in London of the Fellowship of Makers and Restorers of Historic Instruments (FoMRHI).

FoMRHI was founded by D. Abbot, J. Cousen, J. Montagu and E. Segerman, as ‘a Fellowship to encourage authenticity and the rapid exchange of ideas’ in the field of historic musical instrument studies.<sup>15</sup> Membership was typically practitioners either working upon historic instruments, or modern copies. For efficiency in disseminating information, the FoMRHI *Quarterly* was published four times per year, and reproduced members’ submissions in the form in which they had been sent to the compilers. There was no editorial policy. Objection among the membership in 1979 to publication of questionable restoration practices caused the name of the organization to be changed to Fellowship of Makers and *Researchers* of Historic Instruments, thus bringing the organization into line with then-current museum thinking, while still preserving the acronym.

**1977** The inauguration of the journal *Musical Instrument Conservation and Technology*.

This journal was produced by a loosely formed group of museum musical instrument conservators, and was specifically targeted to custodians of museum collections. The first volume was the publication of papers presented at a colloquium on musical instrument conservation held at the Germanisches Nationalmuseum, Nuremberg in 1974. It represents an attempt to bring colleagues in the discipline into a closer relationship, but did not disseminate the museum conservation agenda any wider. It failed to survive beyond its first issue.

**1977** Publication of a booklet by Robert Barclay, *The Care of Musical Instruments in Canadian Collections* (Ottawa: CCI, 1977)

This work was one of a series addressing the care and preservation of Canadian museum collections. It was intended for general museum personnel, and was the first handbook for the non-specialist. It promotes the conservation agenda in counselling against invasive treatment, while emphasising preventive measures to assure stability.

**1979** A publication by Cary Karp, 'Restoration, Conservation, Repair and Maintenance', *Early Music*, 7, 1 (1979), pp. 79-84.

Cary Karp was musical instrument conservator at the Musikmuseet in Stockholm, Sweden. This paper appeared in *Early Music*, a journal of wide readership in early music studies. The article outlines the debate on restoration and conservation, and is a landmark in the dissemination of this information in an international forum. It articulates the pragmatic point of view, advocating that instruments be made 'as copyable as possible',<sup>16</sup> and outlines the loss of historical integrity inherent in restorative treatment.

**1980** A publication by John Barnes, 'Does restoration destroy evidence?', *Early Music*, 8, 2 (1980), pp. 213-218.

John Barnes was a restorer associated with the Raymond Russell Collection of Keyboard Instruments at Edinburgh University. This paper appeared in *Early Music*, a journal of wide readership in early music studies. Barnes describes the potential loss

of information about construction techniques and workshop practices as a result of restoration treatment, and argues for a conservative approach to intervention.

**1982** Publication of a draft document, 'Recommendations for Regulating the Access to Musical Instruments in Public Collections...', *CIMCIM Newsletter*, 10 (1982), pp. 26-45.

This document was produced by the *Comité international des musées et collections d'instruments de musique* after a meeting in Antwerp in 1980. Its consumption was limited to staff of international musical instrument museums who were members of the organization. Its impact in this draft form was small, but it represents a change in the thinking concerning access to collections.

**1982** A publication by Cary Karp, 'Storage Climates for Musical Instruments', *Early Music*, 10, 4 (1982), pp. 469-476.

Cary Karp was musical instrument conservator at the Musikmuseet in Stockholm, Sweden. This paper appeared in *Early Music*, a journal of wide readership in early music studies. The paper describes the effects of poor environmental control, and recommends monitoring methods and instrumentation. It promotes the pragmatic conservation of collections through instrumental techniques. As with his earlier publication in the same journal, this paper represents a landmark in the discussion of such approaches in an international forum.

**1984** Publication of *Recommendations for Regulating the Access to Musical Instruments in Public Collections* (Paris: ICOM, 1984)

This was the publication by the *Comité international des musées et collections d'instruments de musique* of the report resulting from the Antwerp meeting of 1980.

Dissemination of this work was broadened considerably through its publication under the aegis of ICOM, although readership was still predominantly museum personnel.

The publication provides guidelines for access for the purposes of measuring, testing, playing and use in concert and recording of collected musical instruments. While advocating care and handling, the section on playing recognizes that collected musical instruments are still maintained in working condition.

**1984** A publication by Hans-Christoph von Imhoff, *The Conservator/Restorer: a Definition of the Profession* (Paris: ICOM, 1984)

This document was produced by the Conservation Committee of the International Council of Museums. An earlier version was presented for adoption by the membership in 1981, which was, in turn, the result of discussions initiated in 1978.

The work was addressed all personnel engaged in the treatment of historic properties, but readership is limited to those subscribing to ICOM publications. The report makes the first complete definition of the profession, and is also the first document to attempt reconciliation of the hitherto separate disciplines of conservation and restoration.



**1985** A conference in Venice entitled *Per una carta Europea del restauro*.

This conference was one of the functions of the European Year of Music, and it was held with the intention of producing a charter, or code, of practice in the restoration of historic musical instruments. Publication of the proceedings of the conference appeared in 1987 and was widely available to museum staff, private collectors, and restorers. The papers demonstrate a wide range of approaches, from pure conservation and technological research to protocols for restoration. A paper by Arnold Myers, 'The Conservation of Wind Instruments', is important in providing the groundwork for a decision-making protocol in the use of historic instruments.<sup>17</sup> The discussions towards a European charter for restoration practice are included, although the charter itself did not materialize.

**1986** Publication of a booklet, *Code of Ethics and Guidance for Practice* (Ottawa: IIC-CG and CAPC, 1986)

This document was produced by the two Canadian conservation professional bodies, and was targeted to museum personnel working in conservation. It represents a definitive code of ethics and guidance for the conservation profession, laying down the framework of approach to the treatment of historic material.

**1987** Publication of a booklet, *Restoration of Early Musical Instruments*, Occasional Papers No. 6 (London: UKIC, 1987)

This publication resulted from a conference hosted by the Victoria and Albert Museum in London. It was produced as one in the series of *Occasional Papers* of the

United Kingdom Institute for Conservation, with the intention of addressing the 'rifts between the institutional conservator and the private restorer'.<sup>18</sup> Readership was limited to members of UKIC and subscribers to their publications. Contributions generally address interventive restoration of musical instruments.

**1987** A publication entitled *ICOM Statutes and Code of Professional Ethics* (Paris: ICOM, 1987)

This document was produced by ICOM, and was targeted to museum personnel. It represents a definitive code of ethics and guidance for the museum profession, and lays down a framework of behaviour when dealing with all aspects of museum material.

**1991** A publication by John Watson, 'Historical Musical Instruments: A Claim to Use, An Obligation to Preserve', *Journal of the American Musical Instrument Society*, XVII (1991), pp. 69-82.

This article was written by a museum conservator, and was published in a journal distributed widely among curators and custodians of historic musical instruments. Its aim is to suggest a responsible synthesis of playing and preserving of historic instruments. The article proposes:

A rationale by which a minority of representative musical instruments may receive minimally intrusive restoration and judicious musical use in order to preserve and exhibit the aesthetic integrity unique to this class of historic artifacts, and that such restoration and use must be undertaken without significant compromise to the instrument's physical or historical integrity as mandated in accepted codes of museum and conservation ethics.<sup>19</sup>

**1993** Publication of a book by Kate Arnold-Forster and Hélène La Rue, *Museums of Music* (London: HMSO, 1993)

The research for this book was done at the initiative of the United Kingdom Museums & Galleries Commission. The work is directed at museum personnel. It is significant in providing a wide-ranging survey of the state of musical collections in the United Kingdom, and in providing specific recommendations for a commitment to conservation and long-term care.

**1993** A workshop entitled 'The Conservation of Musical Instruments' at the Horniman Museum in London.

This one-week workshop was initiated by the Canadian Conservation Institute. It was organized by the Museums & Galleries Commission of the United Kingdom, and hosted by the Horniman Museum of London. The workshop was open to personnel concerned with the care and treatment of musical instruments, and included conservators, restorers and curators among the delegates. Conservation philosophy was discussed, and procedures of a minimally interventive nature were described. Emphasis was placed upon maintenance of the found state, and upon derivation of information by scientific examination.

**1993** A publication, *Recommendations for the Conservation of Musical Instruments: An Annotated Bibliography* (Paris: ICOM, 1993)

This document was produced by the *Comité international des musées et collections d'instruments de musique* under the aegis of ICOM. It was intended for museum

personnel not specialized in the care and preservation of musical instruments. It comprises an annotated list of 20 key publications on the conservation of musical instruments. The publications isolated for inclusion in this work are all from the museum conservation perspective, and instruments in playing condition are not discussed.

**1995** Publication of an information folder, *Standards in the Museum Care of Musical Instruments* (London: MGC, 1995)

This is one in a series of folders commissioned from committees of practitioners in the museum field, and produced by the Museums & Galleries Commission of the United Kingdom. Items in the series are intended for use by general museum personnel. This work is a step-by-step guide to the accessioning, documentation, and care of historic musical instruments. It outlines the museum conservation viewpoint, yet still provides guidelines for the care of musical instruments that are maintained in working condition.

**1998** Publication of a book edited by Robert Barclay, *The Care of Historic Musical Instruments* (Ottawa: CCI/CIMCIM/MGC, 1998)

This work was produced by the Canadian Conservation Institute, the Museums & Galleries Commission of the United Kingdom, and the *Comité international des musées et collections d'instruments de musique* (CIMCIM). It was intended for wide dissemination, addressing the concerns anyone working with historic instruments. It is the work of seven contributors from a wide range of specializations in the care and

preservation of historic musical instruments has been incorporated in this book.

Thorough and in-depth guidance is provided on the many aspects and demands of managing the retirement from active service of heritage musical instruments, whether they are in the possession of individuals, private collectors, or museums. Details on the resources, advice, and support available to the custodians of collections are also included. The authors counsel against restoration of historic instruments, but recognize that guidelines for the care of working instruments are still necessary.

## NOTES

1. Otto, p. iv.
2. Quoted in Alexander, p. 159.
3. *Proceedings of the Society of Antiquaries*, III, 1853-1856, pp. 185-186.
4. Ruskin, *Seven Lamps*, p. 161.
5. Hepworth, p. 2.
6. *ibid.*
7. Anon., *Ars Organi*.
8. ICOMOS, p. 15.
9. Hubbard, preface, p. x.
10. Berner, et. al., p. 8.
11. Adlam, pp. 255-265.
12. *Eine ehrwürdige Ruine ist besser als ein falsch restauriertes Instrument* (Skowronek, p. 29).
13. Montagu, 'Restoration', pp. 265-267.
14. Pinzauti, p. 133.

15. Montagu, Jeremy, letter to author, 14 July 1998.
16. Karp, 'Instruments', p. 180.
17. Myers, pp. 221-231.
18. Ashley-Smith, Jonathon, p. 2.
19. Watson, p. 78.

## **CHAPTER THREE - ANALYSIS OF SOURCES**

This chapter examines sources in the craft tradition of instrument repair and maintenance, and relates them to their social context. It shows that documentation of work done upon instruments is initially driven by commercial necessities, but increasingly becomes related to the yield of technical information that treatment affords, and the necessity for recording details of intervention. The chapter concludes with a discussion of the relationship between the work of the artisan and its appreciation by the user of the musical instrument.

### **3.1 DOCUMENTATION OF THE CRAFT TRADITION**

Before the middle of the present century, the craft practices of repair and refurbishment at the level of the individual instrument were characteristically non-textual. Craft practices were part of an oral tradition, and information was passed on by example through a system of apprenticeship. A very clear distinction was made between those who maintained and repaired instruments, and those who used them. For example, in his 19th century book on the care of bowed instruments, William Hepworth asks:

How many pianists are there, for instance, who have scarcely ever seen the inside of a piano, and how many violinists, who are with regard to the formation and treatment of the instrument in a remarkable state of ignorance?<sup>1</sup>

It was not considered necessary for the musician to know how the tool was made or how it worked, when there existed a class of craftsmen capable of doing whatever needed to be done. This distinction between the user and the individual charged with maintenance was one of class, and is reflected in the comparative scarcity of written records of transactions upon

specific musical instruments undertaken by the practitioners. Documentary sources originate in a dominant, literate culture, with the distorting effect that the written work of such intermediaries implies. This line of reasoning is pursued in more detail later.

Regarding the scarcity of documentation of treatment of works of art in the past, one recent commentator pointed out that ‘it was not considered necessary to write a detailed report on treatments carried out [...] and restorers were little inclined to allow their interventions to be officially recorded’.<sup>2</sup> Another remarks that ‘the history of early restoration has yet to be written, but virtually nothing was recorded at the time by the craftsmen involved’.<sup>3</sup>

Some textual evidence on procedures performed on individual instruments emerges, but not, in general, as a result of any articulated directive to pass information on current practice to contemporaneous practitioners, or to the future. Typically, it emerges in peripheral documents such as contracts for work to be performed or bills for service. An example of the scarcity of technical documentation occurs in a communication of the 1930s from Irvin Hinchliffe, a keyboard instrument restorer, to Benton Fletcher, owner of a collection of keyboard instruments now housed by the National Trust at Fenton House, Hampstead. On the back of a brochure for his Uckfield, Sussex, establishment, Hinchliffe writes ‘here is the Cash Spinnet in perfect order. I am proud of being able to repair such a derelict as it was’.<sup>4</sup> No other information is provided. It is only through the need to communicate completion of the work to its owner that even this much information has been recorded. In the absence of a fuller record, details of the repair can only be deduced by inference from this scant reference, or by direct examination of the instrument.



Occasionally, more specific information on work done is recorded, but it can still fall far short of a succinct document. For example, there is the account book of Dom Vincenzo Ascensio, who worked for the Spanish Court in the late 18th century. Regarding a Stradivari viola he treated, the entry of 17 July 1783 reads in part:

I pieced the centre and replaced the bar by one adjusted to mathematical proportions based on that of Stradivari. I corrected the thicknesses, pieced the four corner-blocks, took the back off and inserted a piece in the centre, as it was too thin. I had to replace the neck, which I did in the most careful manner. I then adjusted the instrument, the tone of which was rendered excellent by all these changes. It took me three months to do, and I consider the repair worth a 1,000 reals... I restored the red velvet lining and repaired the case, which contained the five inlaid instruments; I arranged the niches and places for the bows, also the hinges, and put a blue ribbon to support the lid when open: 380 reals.<sup>5</sup>

Many of the assumptions made by the writer are not transparent to the later reader. In what way were the thicknesses corrected? By what definition was the back too thin? And how did the replacement bass bar differ from that already fitted? The answers to such questions are not revealed in what is, after all, simply the recording of a commercial transaction.

In some instances, textual evidence emerges in the recording of treatment by individuals, other than craftsmen who actually performed the work. For example, information on the restorations of the Harp of Brian Boroimhe and the Dalway Harp, both residing in the Dublin University Museum, was published in two leaflets by R. Ball in 1853.<sup>6</sup> The condition of the Harp of Brian Boroimhe is the least documented of the two; the only detail of the work done records that 'the present Director of the Museum, having observed the mutilation, restored the parts of the Harp to their proper position, and supplied the lost portions from analogy'.<sup>7</sup> The lost parts are then briefly described.

The account of the Dalway Harp includes details of its construction, decoration, and dimensions, but records only that accurate restoration of the bow and harmonic curve were undertaken through the copying of original parts, and that the soundboard was restored from analogy.<sup>8</sup> Both texts imply that the Director of the Museum, himself, was responsible for the work but, given the social climate of the time, this is unlikely. It is more probable that the actual bench work with tools was done by another, whose input is unrecorded and unremarked. The accounts of these restorations are considered rare enough that copies of them are reproduced in Appendix II.

Because craft transactions upon musical instruments were, in general, not recorded by those who did the work, extant sources tend to have an intrinsic distortion because they are the records of observers who have no insight, or interest, in the actual mechanical operations. A typical case of the distortion introduced by such recording from a dominant culture is provided in the following anecdotal fragment. The following paragraph appears in an article of 1912 when a set of recorders discovered in Chester were played before the Society of Antiquaries:

When the Chester Archaeological Society moved from its old rooms into the present Grosvenor Museum in 1886, an old worm-eaten box of peculiar shape was discovered, which was held together only by the green baize with which it was lined, and contained what were apparently the remains of some musical instrument. The remains proved to be a set of recorders or lip flutes in an excellent state of preservation.<sup>9</sup>

In this reference there is an unresolved contradiction between ‘the remains of some musical instrument’ and the ‘excellent state of preservation’. The above description makes no reference to the means necessary to transform the first state into the second; to bring the instruments back into playing condition required intervention, which must have taken place,

but at this juncture is entirely unrecorded.<sup>10</sup> Such intervention is not considered worthy of recording, because it is the outcome of a manual craft applied to a functional object.

Even though the importance of technical documentation rose in the latter part of the 20th century (see Section 3.3, following), an example of the low value still placed upon it in the craft tradition is seen in the sole reference in Orde-Hume's definitive study of the barrel organ, published in 1978: 'One can waste many hours on re-assembly trying to remember how the bits went together when a couple of minutes and, perhaps, a rough pencil sketch on the back of an old envelope could have saved the day.'<sup>11</sup> That a rough sketch on a scrap of paper would be considered sufficient for assembly instructions indicates the persistence into the modern era of a non-textual craft culture.

The generally non-textual nature of the craft tradition, and its impact upon attitudes towards the treatment of historic musical instruments, is developed further in the following sections. In discussing the general absence of records of work made by craftsmen there remains the possibility that sources are scanty because they may have been kept originally, but have failed to survive. However, this is an hypothesis based upon an absence of information and cannot be pursued further in a scholarly context. On balance, the argument that the craft tradition was, and continues to be, non-textual must carry more weight.

### 3.2 SOURCES ON GENERAL CARE OF INSTRUMENTS

In contrast to the lack of information on the treatment of particular instruments, guidelines on the general care, repair and refurbishment of generic musical instruments are a feature of manuals on performance practice. In a 17th century example, Thomas Mace makes a case for providing directions in the care of the lute as a preface to *Musick's Monument*:

As to the Mechanical Part Thereof, (about which I have taken up the Room of 2 Chapters, viz. the 4th. and 5th.) I apprehend, that some will think It Superfluous, and others, a Thing too far below Them to undertake; which I grant may be for very many; yet Below None to be able to know how It should be done, or when Well or Ill done; so that Thereby They may not be Gull'd, or Their Instrument Injur'd by some Ignorant, Careless or Knavish Work-man who too often Abuse both It, and the Owners; which He durst not venture to do, but that he presumes They are wholly Ignorant of His Art.

Besides, I have known many, Living in the Countrey, (Remote from Good Work-men) upon some very Slight Mischance happening to their Instrument, (for want of That Knowledge, which Here they may find) quite Lay It by: and the Instrument, for want of Timely Assistance, has grown Worse and Worse, (sometimes) to Its Utter Ruine.<sup>12</sup>

Mace deals in great detail with the maintenance of all parts of the instrument, including taking the belly of the lute off, and describes the tools, materials and techniques required.<sup>13</sup> He then outlines the environmental considerations in caring for instruments of thin and fragile wood, and lists seven reasons for storing the lute in a frequently used bed.<sup>14</sup> These guidelines are generally intended to inform readers not so much of what to do themselves (because he agrees that manual exercise is generally beneath them), as what to watch for when the work-man is called in.

An emphasis on the education of the lower classes encompassed early in the 19th century through the utilitarian goal of the 'diffusion of useful knowledge', led to an increase in the

publication of texts on technical, engineering, manufacturing, and kindred topics.<sup>15</sup> The emancipation of the expert artisan would be achieved ‘not by following his own inclinations but by systematically reading what he had to learn in order to become a better workman’.<sup>16</sup> This trend stimulated the appearance of treatises on the construction and repair of instruments -- independent of instructions on their playing -- written by the practitioners of the craft, and derived from their personal experience. The translation from the German, at the beginning of the 19th century, of the work of Jacob Augustus Otto, *Structure and Preservation of the Violin* is an early example.<sup>17</sup> Otto states the craftsman’s (as opposed to the theoretician’s) point of view:

Having been engaged for the last thirty years in the restoration of [...] damaged instruments, and in the construction of new ones; and having, from my youth, studied music, mathematics, physics and acoustics, I consider myself better qualified to reason on this Art, with the practical experience gained during the above period, than one who merely understands the subject theoretically, or who only imitates the work of another without thinking for himself.<sup>18</sup>

Later in the 19th century, and into the 20th century, handbooks on restoration and repair of a wide variety of domestic objects, written by craft practitioners and aimed at a general middle class readership, became popular. Typical of books specific to musical instruments are those of William Hepworth, *Information on String Instruments*, mentioned above, and Alfred F. Common, *How to Repair Violins and other musical instruments*. After a detailed description of the structure and function of the instruments of the bowed string family, Hepworth provides notes on general maintenance. He recommends ‘application [...] to a well-qualified, experienced and conscientious violin-maker’ for any repair work.<sup>19</sup> Common’s approach is more general, and somewhat more invasive. He provides simple maintenance and repair guidelines for violins and bows, banjos, mandolins and guitars, brass and woodwind

instruments, and musical boxes. The readership is the general public, and the techniques described are basic.

Encyclopaedias of recipes and techniques became popular in the 19th century, and again the emphasis is practical and the level of readership general. Typical of this genre is Hasluck's *Handyman's Enquire Within* which deals, under the heading of 'Making, Mending, Renovating', with cleaning, varnishing and remedying woodworm in violins<sup>20</sup>, and removal of dents on brass instruments with ball and burnisher.<sup>21</sup>

Increasingly through the 19th century manufacturers of musical instruments provided printed directions on the care and preservation of their products. The intention of such material was not so much instruction in repair and maintenance, as promotion of the commercial interests of the manufacturer in securing contracts for continuing maintenance.

### 3.3 THE RISE OF TECHNICAL DOCUMENTATION

The early music movement of the 1960s is distinguished from the amateur and somewhat eccentric trend that preceded it by its increased emphasis on scholarly study. The appearance of specialized journals, such as *Early Music* and *The Galpin Society Journal*, argues the growing need to disseminate information, together with a legitimization and popularity of the pursuit. Dismantlement of instruments during treatment had always provided restorers with unique opportunities for exploration, providing insights into historical construction methods, restoration protocols, and causes of deterioration and failure. This insight, combined with the

analytical and scholarly approach that characterises the early music movement, resulted in a dramatic increase in the quantity and quality of documentation as an aid in the understanding of early workshop technique. The publication of such works as Shortridge's *Italian Harpsichord Building in the 16th and 17th Centuries* in 1960, and Hubbard's *Three Centuries of Harpsichord Making* in 1965 signal the enfranchisement of documentation by the musical instrument restoration establishment.

The growing discipline of museum conservation (detailed in Chapter 6) made documentation one of the central tenets of its practice. The codes of ethics for conservation place the documentation of treatment on an equal plane to the object itself:

The conservator has an obligation to document his/her work by recording all details of the conservation of a cultural property. Examination records and treatment records are an intrinsic part of the property; they should be kept in as permanent a manner as is practical and be available for appropriate access.<sup>22</sup>

By making documentation an intrinsic part of the historic object, its absence in the treatment of the object becomes a source of censure on ethical grounds. So, while restorers placed a premium upon deriving, during treatment, information that elucidated early technique, the museum discipline focussed more on recording what treatment had been actually done, thus creating a cumulative technical history.<sup>23</sup>

### 3.4 THE SILENT ARTISAN

A recurring theme in the examination of documentary sources concerning the treatment of musical instruments is the phenomenon of the silent artisan. As noted in Section 3.2, at the level of treatment of the individual instrument, little is initially consigned to writing. It was

not until well into the latter half of the 20th century that the treatment of those musical instruments defined in Chapter 1 as ‘historic’ came to be documented systematically by those who did the work. It is shown in Chapters 5 and 6 that such documentation is a symptom of the elevation of this activity into the realm of the dominant culture.

A corollary to the silence of the artisan in documenting work, is seen in the silence of the artisan in the decision-making process. When musicologist Richard Taruskin states that ‘artifacts of past culture [...] are still intact and available in a way that musical artifacts obviously can never be [because] music has to be imaginatively recreated in order to be retrieved’, he is repeating the dominant assumption that the musical instrument -- the tool -- is not subject to change as a result of natural deterioration, wear and craftsmanly intervention.<sup>24</sup> Missing from this assertion is the realization that the restoration of deteriorated early instruments to projected previous states does, indeed, involve imaginative recreation.

As discussed in Section 3.2, a clear distinction can be seen between the user of the instrument who dictates the treatment and the artisan who performs it. And it is clear that, as the user is distanced from the operations of the bench, so the musical quality of the finished product is valued above the means taken to achieve it. A pointed example of this is seen in the views of violinist Anne-Sophie Mutter on her 1710 Stradivari instrument:

What’s miraculous is that an instrument like this has always, throughout its nearly 300-year existence, adapted itself over and over again to whoever plays it, like a sponge that has soaked up all that music.<sup>25</sup>



Comments such as this, which are encountered frequently among players of historic instruments, point to an attitude that, by its indifference (perhaps born of ignorance), unwittingly debases the craft tradition. It is assumed that the instrument has adapted itself repeatedly to the changes demanded of it, rather than the more mundane circumstance of craft intervention being necessary over its entire life.

This indifference to, and dismissal of, the craft tradition harks back to a time when the user of the object and its service provider were socially distanced. Musicians working on their own instruments was ‘a Thing too far below Them to undertake’, in Thomas Mace’s words.<sup>26</sup> Reactions against this disparagement of the mechanic arts are found in sources contemporary with Mace. In commenting upon the perceived lowly status of the artisan, Joseph Moxon writes: ‘I see no more Reason, why the Sordidness of some Workmen, should be the cause of contempt upon Manual Operations, than that the excellent Invention of a Mill should be despis’d, because a blind Horse draws in it.’<sup>27</sup> In a slightly later example, Marshall Smith, in his handbook on the art of painting, echoes the same sentiment when he says: ‘He that despiseth the noblest Products of the Soul, because it requires the Assistance of the Hands for Demonstration, I think deserves not those useful Members which he so foolishly Condemns.’<sup>28</sup>

This desire to distinguish socially those who operated with the hands from those who used the mind appears fully expressed in the 19th century theory of ‘graphopneumata’.<sup>29</sup> In his book on painting technique, George Harris proposes that the act of putting paint onto canvas be undertaken by a craftsman under instructions from a man of intellect, thus making the

execution of a painting the epitome of social division. As materials historian Leslie Carlyle has remarked, 'with Harris's system, the "artist" would be forever spared from the coarseness of execution'.<sup>30</sup> Although such sentiments, and the social stratification based in class which underlies them, had largely disappeared by the time of the onset of the early music movement of the 1960s, they nevertheless persist even to this day in the attitudes and assumptions regarding manual operations that are summarized by the 'silent artisan'.

The fundamental area in which these attitudes and assumptions bear upon the treatment of historic musical instruments is in an indeterminacy of evaluation that they introduce. If the extent of the measures taken to make the instrument playable is ignored by the player, then the result of those measures upon the finished product will be impossible to assess. Thus, a massive intervention that has not been documented, and the technical details of which are not of interest to the player, will not be accounted for in the assessment of the musical instrument's performance after treatment.

This aspect of the level and extent of the user's understanding and appreciation of craft intervention is fundamental to the critical analysis of actions and rationales which forms the body of this work. The regimen to which an historic instrument is assigned can be perceived in the degree of understanding of treatment processes and their implications, and the level of agreement between the user of the instrument and the person who performs the work.

### 3.5 SUMMARY

Underlying all craft activity on musical instruments is a generally non-textual craft tradition. Documentary sources initially tend to be tangential, relating to commercial transactions, rather than the recording of actions. As consciousness of the place of historic artifacts in society develops, documentation of treatment becomes a discipline underwritten by both the collective desire for the dissemination of information, and by the strictures of codes of ethics. The nature of the sources provides insight into the social circumstances of the musician and craftsman, and the developing consciousness of the place of the historic object in society. The concept of the 'silent artisan' is pivotal to the understanding of treatment actions and rationales.

### NOTES

1. Hepworth, pp. 3-4.
2. Marijnissen, p. 275.
3. Oddy, p. 10.
4. Hinchliffe Restorations brochure, undated, files of the Benton Fletcher Collection, Fenton House, National Trust. Although this brochure is undated, Hinchliffe worked on the collection of Major Benton Fletcher when it was located at Devonshire House, London, in the 1930s.
5. Quoted in Hill, et. al., pp. 77-78.
6. Ball, *Boroimhe*; and Ball, *Dalway*.
7. Ball, *Boroimhe*, p. 1.
8. Ball, *Dalway*, p. 1.

9. Bridge, p. 117.

10. Although there are no extant sources on the treatment of these recorders, it is to be noted that woodwind instruments that have been left unused require significant intervention without exception. (See, for example, Zadro, 'Guide', where cleaning, lapping of head joints, and oiling are described.)

11. Ord-Hume, p. 349.

12. Mace, 'The Preface', verso a.

13. Mace, pp. 54-61.

14. Mace, p. 64.

15. Altick, pp. 130-131.

16. Altick, p. 132.

17. Otto's work was first published as *Über den bau und die Erhaltung der Geige und aller Bogeninstrumente...* (Halle and Leipzig, 1817). It appeared in several English editions throughout the 19<sup>th</sup> century.

18. Otto, p. iv.

19. Hepworth, p. 84.

20. Hasluck, p. 538, col. 2; and p. 540, col 1.

21. Hasluck, p. 375, cols. 1-2.

22. IIC-CG and CAPC, p. 9.

23. In his overview of the profession of conservation in *The Art of the Conservator*, British Museum conservator Andrew Oddy provides a useful synopsis of the methods of examination and documentation upon which the profession is based (Oddy, pp. 16-21).

24. Taruskin, *Text and Act*, p. 56.

25. Beuth, p. 73.

26. Mace, The Preface, verso a.

27. Moxon, p. 1.

28. Smith, p. 16.

29. Harris, vol. 2, p. 259.

30. Carlyle, p. 20.

## CHAPTER FOUR - CURRENCY

The regimen of Currency was defined briefly in Section 1.2: the instrument continues in use, being maintained in working condition, and adapted to suit changes in musical fashion.

Instruments in this regimen are already in working condition, and craft action upon them is defined as *maintenance*. This chapter completes the definition of Currency, outlines its scope, and identifies key unique values through which it is characterized. It demonstrates that Currency is the base regimen of the craft tradition of musical instrument repair and maintenance. As will be shown in subsequent chapters, the regimens of Restitution and Preservation appear during the 19th and 20th centuries, and become superimposed upon, or exist alongside, Currency.

### 4.1 MUSICAL FUNCTION

It is an assumption of the Currency regimen that musical function is the goal of treatment. The 'current' musical instrument is one that is supported by a craft tradition that embraces the adaptability of the musical instrument to changes in musical fashion. Treatment of the instrument includes repairs and adjustments, upgrading, improvement, and the addition of new parts. It may result eventually in transformation of the instrument's fundamental character. All actions upon instruments in this regimen are described under the general term of maintenance, and may include servicing, repair, adjustments, alterations and improvements.

## 4.2 THE NATURE OF SOURCES

As discussed in Sections 3.2 and 3.3, in the largely non-textual regimen of Currency the lack of documentation of work is a necessity driven by commercial restraints on time, coupled with an earlier lack of writing skills. Even with an increase in the general level of education of craftsmen throughout the 19th century, documentation of work continued to be a luxury not normally afforded the working man. Where a piece of work is priced by the time taken to accomplish it, the result of the work stands as its own documentation.

In the bowed string industry a complicating factor arises; that of the effect of explicit documentation upon monetary value. It is argued that documentation of all the work necessary to keep a valued violin in excellent working condition would result in a fall in its resale value.<sup>1</sup> For all the above reasons, sources that deal specifically with the nature of work done upon individual musical instruments, the materials used, and the techniques employed, are rarely encountered in the regimen of Currency, and when they are it is the result of the commercial necessity of rendering an estimate, a bill of sale, or an invoice. An absence of treatment documentation in a case study provides a clue to the presence of the regimen of Currency.

## 4.3 CONTINUITY THROUGH MAINTENANCE

In his examination of the impact of the past on modern society, David Lowenthal identifies four valued attributes of the past; those features that distinguish the past from the present, and

from the future. These are antiquity, continuity, termination, and sequence. Although he describes these as ‘a heterogeneous array labelled here solely for heuristic and exploratory purposes’, he nevertheless provides a more enduring structure in analysing approaches to the use of the past.<sup>2</sup> Termination and sequence are simply descriptive of the way in which the passing of time is apprehended, but the first two, antiquity and continuity, are useful here in categorizing the activities of using, preserving and safeguarding objects of cultural value. Continuity ‘implies a living past bound up with the present, not one exotically different or obsolete’, and this is exactly the sense in which maintenance is viewed in this work.<sup>3</sup>

The key feature of maintenance is diachronic continuity, a capacity for values of the past to be incorporated into the present, and to exist alongside it. In the context of the continued currency of music performance, musicologist Robert Morgan observes that ‘the past, to the extent that it prevails at all, is not isolated from the present but forms part of it’.<sup>4</sup> He uses the example of J.S. Bach’s keyboard music which was played in the later 19th century on the piano, an instrument virtually unknown to Bach, with a full and continuous dynamic spectrum, and the facility for legato articulation and sustaining pedal. Octave doublings were common and free arrangements, transcriptions, and ‘corrections’ were a matter of course. Bach’s keyboard works were transformed into essentially new pieces, but were comprehended in the 19th century as part of a vibrant and on-going musical tradition.<sup>5</sup>

Morgan states that:

From our own vantage point, such liberties may strike us as unforgivable perversions; yet we should recall that they were deemed acceptable precisely because Bach’s music persisted as part of a flourishing tradition, unbroken and in constant transformation - renewing itself through new ideas and developments. Bach was altered in order to protect the currency of his music and to preserve his place within the tradition.<sup>6</sup>



Maintaining the currency of musical instruments by continuous, interventive technical processes is the craftsmanly equivalent of transforming the music to suit contemporary taste. In maintaining singularized instruments in functioning condition, there is an act of reverence to their makers, and by maintaining their currency in the musical tradition, obsolescence is deferred and the continued cultural presence of both the instruments and their makers is ensured. As Lowenthal states:

Celebrating continuity, as distinct from antiquity, is profoundly anti-escapist. The accretive past is appreciated less for its own sake than because it has led to the present.<sup>7</sup>

Improvement is a craftsmanly expression of diachronic continuity, and changes made to instruments in the regimen of Currency will always be considered by those who subscribe to the regimen as improvements. Improvements are defined here as irreversible operations that change the nature of the instrument (such as the permanent introduction of substantially different components), and are thus distinguished from the application of such removable additions as strings, mouthpieces, reeds, and tuning devices.

Maintenance, in the broad sense in which it is used here, can be demonstrated comprehensively in dealings with the instruments of the bowed string family, and especially those of the Cremona school which responded well to the dramatic changes in musical fashion at the turn of the 18th century. In describing the alterations made to the neck angle and finger-board dimensions of Cremonese violins, the Hill Brothers, the pre-eminent 19th-century London violin dealers, remark that 'our modern adjustment of the neck and finger-board certainly constitutes an improvement'.<sup>8</sup> This change allowed greater facility in playing below the fourth position, and permitted a higher bridge and string tension to be employed,

thus increasing the dynamics and compass of the instrument.<sup>9</sup> Boyden provides a comprehensive overview of the changes that have taken place to the structure and acoustics of the violin, and the historical circumstances surrounding them.<sup>10</sup>

References to other instruments with a potential for technical reassessment and upgrading are also encountered in the literature, and the extant instruments bear witness to the extent of treatment. In the 17th and 18th centuries valued plucked string keyboard instruments underwent phases of change, particularly in their compass, due to greater demands by composers. The changes made to Ruckers harpsichords included the removal of the 4' register and its substitution with one of 8' pitch, while *petit ravalement* increased the compass of the instrument by inserting more but narrower keys.<sup>11</sup> Further changes made in the 18th century, termed the *grand ravalement*, included extending the casework to increase the compass further, and the removal and substitution of bridges, wrestplank, nuts, and tuning pins. These changes allowed the instruments to be used for playing contemporary keyboard compositions that required the greater compass.<sup>12</sup> Edinburgh keyboard instrument scholar Grant O'Brien details the transformations undertaken on harpsichords from the workshop of the Flemish makers, Ioannes and Andreas Ruckers.<sup>13</sup>

Other examples of changes made to musical instruments during their working lives include the stocking often applied to the inner legs of trombone slides, which became a permanent design feature in the 19th century.<sup>14</sup> This improvement permitted smoother, faster, and more reliable playing by reducing the surface area of metal in contact and making it uniform over the full slide range.<sup>15</sup> Sometimes alterations were extreme, as in the case of lutes of the 16th

century from Bologna, particularly those of Laux Maler. These lutes were much sought after in the following century, and updated to the point that only the body remained from the original instrument. The correspondence between the French lute-player, Jaques Gaultier, and Constantin Huygens of The Netherlands, describes removal of the table, re-barring, and complete replacement of the neck, as means of putting an instrument into playing order.<sup>16</sup>

Organs lend themselves to extensive change because individual pipes can be retuned and voiced as pitches and temperaments change, whole ranks of pipes may be discarded due to decay or obsolescence and replaced with new ones, and all other units of the mechanism may be detached and substituted. In addition, the installation of a large organ is a costly investment, not to be repeated if other, more economical, measures can be taken. As an example, in an article in the *Organ Yearbook*, Dale Carr describes the multi-layered restorations undergone by the 1702 Schnitger organ in the Der Aa-Kerk in Groningen, providing a case study that illustrates the potential extent of transformation.<sup>17</sup>

Woodwind instruments are less likely to be kept current because their fixed tuning makes adaptation to changes in pitch standard and temperament technically challenging. However, occasionally such interventions are successfully carried out. Complimentary and conflicting views are presented in a debate over the modernization of flutes by the 19th-century French maker Louis Lot.<sup>18</sup>

From the foregoing, it can be seen that the definition of maintenance in this work is very broad. It encompasses all work carried out upon a musical instrument to ensure its longevity

and continuity, including routine servicing, repairs, alterations and improvements. It specifically *excludes* restoration, which is dealt with in the next chapter. A clear distinction between maintenance and restoration is of key importance to the critical analyses of historic musical instruments that follow these introductory chapters.

#### 4.4 THE VALUES OF CURRENCY

The critical analyses of case studies are structured around two questions: what action has been taken on the instrument, and upon what rationale is the action based? It is helpful to derive unique key values so that action and rationale can be examined in context. In the following sections it will be shown that Currency is characterized by unique values relating to subjective responses elicited from the instrument, and that such values comprise exclusive markers that can be used to demonstrate that the regimen of Currency is subscribed to during the treatment and use of a musical instrument.

The key factor in maintaining the currency of an instrument is its potential for continuing use after both technical improvements and alterations brought about by changes in musical fashion. All actions, in the form of craft interventions, are focussed on this goal. The rationales underlying such actions upon culturally valued historic instruments contain many of the subjective elements encountered in romantic ideology.<sup>19</sup> As described by cultural theorist Raymond Williams, the Romantic literary, artistic, and philosophical movement arising at the end of the 18th century embraced subjectivity in ‘new valuations of the “irrational”, the “unconscious” and the “legendary” or mythical’.<sup>20</sup> In addition, the increasing

dominance of romanticism in the intellectual milieu of the late 18th century created the concept of the genius; the individual who must work outside the classical rational framework.<sup>21</sup>

Romanticism reached maturity as a literary, artistic and philosophical movement in the 19th century, but the beliefs and aspirations of its chief commentators comprised what would only later be classified by observers as a homogenous movement. It has been pointed out that 'if [such terms] are used without a sense of the historical complexities which lie behind them, they can distort the literature to which they refer, rather than illuminating it'.<sup>22</sup> Nevertheless, the values of the Romantic movement outlined in the following sections can be equated with phenomena still well in place during the latter part of the period under study. These values are discussed in detail below.

#### **4.4.1 The Pathetic Fallacy**

Because of the intensely interactive nature of musical instruments, they tend to become imbued with personality, and come to have human qualities ascribed to them. They are assigned memory, an independence of judgement, and a power of almost conscious interaction with their players. In discussing the treatment of ancient Venetian buildings, John Ruskin addresses such a personification of objects:

In many instances, the restorations or additions have gradually replaced the entire structure of the ancient fabric, of which nothing but the name remains, together with a kind of identity, exhibited in the anomalous association of the modernized portions: the Will of the old building asserted through them all, stubbornly, though vainly, expressive.<sup>23</sup>

Ruskin is subscribing to the prevalent belief from the late 18th century onwards, that works of art and craft accrue an essence independent of their materials of fabrication. This thinking had become imbued into the collective consciousness by the influence of the writings of Wordsworth and Collins, among others.<sup>24</sup> Buildings, to Ruskin, had a will of their own, and it is clear that wholesale replacement of the fabric does not necessarily dilute or mask this intangible phenomenon. Neither does it detract from buildings as objects to be revered and cherished; quite the reverse, it adds layers of experience to them. Ruskin himself coined the term pathetic fallacy to describe the tendency, among poets in particular, to ascribe human emotions or actions to inanimate objects. He describes the pathetic fallacy as:

The difference between the ordinary, proper, and true appearance of things to us; and the extraordinary, or false appearances, when we are under the influence of emotion or contemplative fancy; false appearances, I say, as being entirely unconnected with any real power of character in the object, and only imputed to it by us.<sup>25</sup>

Used in this context, the pathetic fallacy contains elements of the 'irrational' and the 'unconscious'.<sup>26</sup> A fine example of subjective sentiments applied to musical instruments appears in the prelude to the Rev. H.R. Haweis's exposition, *Old Violins*, published at the end of the 19th century.<sup>27</sup> He opens by remarking that 'the fascination of the violin is the fascination of the soul unveiled'.<sup>28</sup> Haweis continues by paraphrasing a collector's sentiments upon his instrument:

The grace of the curves [...] full of a variety of levels like the satiny surface of a fine human body. You might almost believe that a whole system of muscle - a very living organism - lay beneath the 'back' and belly, which to his eyes are alive with swelling and undulating grace.<sup>29</sup>

And in parallel with Ruskin's sentiments upon the continued assertion of the will of an old building, even through restoration, addition and transformation, Haweis says of the violin that:

It is never fit for death; it survives a thousand calamities; nay, even when cut up and dismembered, its several parts, scattered through a dozen workshops and three hundred years, live on with a kind of metempsychosis in new forms, and still cling strangely to their individuality.<sup>30</sup>

These sentiments are balanced by the more pragmatic Hills, who mention only briefly in *Antonio Stradivari: His Life and Work*, published in 1902, that 'instruments by continual use are apt to become weary. They may even be virtually killed'.<sup>31</sup>

Weariness, sleep, and death are attributes ascribed to musical instruments in the Currency regimen. Those that are not played upon regularly, or are confined to museum display cases, are said to fall asleep or die. Under the heading 'Gifted young violinists win loans to awaken sleeping Stradivariuses', the following statement is reported:

In a letter to the winners, the donor said the violins had been sleeping in a vault and underplayed for years. The donor has been convinced by a friend that 'my investment would reap wonderful dividends by "awakening" these instruments'.<sup>32</sup>

In discussing protocols of treatment, string instrument specialist Leonardo Pinzauti argues that museums should be endowed with 'consulting rooms' where 'instruments can continue to live in the most authentic way, which is through playing, to prevent their atrophying'.<sup>33</sup> Playing is regarded as a way of staving off deterioration, and it is used as a foil against 'decaying relics' in museums,<sup>34</sup> and 'ignorantly deposited' instruments.<sup>35</sup>

Musical instruments also become imbued with idiosyncrasies which reflect traits of personality. London Symphony Orchestra flautist Michael Cox writes the following of his Louis Lot flute:

How can I tell how much my old French flute dictates itself to me or how much I dictate of my own to it? Certainly [...] I draw the conclusion that I consider my flute to be a complementary, if not equal, musical personality. It has its own rich persona

and ample voice. On reflection I realise, furthermore, that I have never found another instrument with such an extensive combination of personality and vocabulary.<sup>36</sup>

Violinist Anne-Sophie Mutter, who reported that her 1710 Stradivarius has absorbed the music and idiosyncrasies of past players (quoted in Section 3.4) notes that ‘an instrument is stamped with the character of the musicians who play on it’.<sup>37</sup> And elsewhere she says ‘I know straight away when someone’s been playing my violin. One can tell the change immediately’.<sup>38</sup> In a similar vein, a freezing and mechanical oscillation process applied to brass instruments is reported to result in a ‘collecting of experience by the instrument’.<sup>39</sup> The result is likened to ‘a group dynamic process within a team’ where ‘as soon as a harmonic togetherness is achieved a memory effect will occur’.<sup>40</sup>

These examples show that musical instruments become imbued with the subjective elements associated with personality, and have ascribed to them the human qualities of memory, independence of judgement, and conscious interaction. The presence of these assigned subjective traits in sources on the care or preservation of instruments indicates that the values of Currency are held.

#### **4.4.2 Legendary Attributions**

The legendary contains elements of the mythical, as cited in William’s definition of the Romantic.<sup>41</sup> Individual achievement is magnified, and the arcane is invoked by references to lost secrets and covert practices. A quality that is at times precognizant, eccentric, or superhuman is bestowed upon the composers, and upon the players, makers, and restorers of



musical instruments. As Jacques Maquet observed in his anthropological perspective on the visual arts, regarding the 19th century genesis of the concept of genius:

A genius was not learning and slowly progressing; he was inspired, even compelled to create out of an inner necessity stemming from his own singularity. The social milieu, recognized as the main determinant in the ordinary lives of ordinary people, was a hindrance against which artists should rebel if they wanted to be great. Their genuineness and spontaneity should not be inhibited by social constraints.<sup>42</sup>

As an example of such a bestowed precognizance, the pre-eminent 19th-century musicologist Philipp Spitta discussed the ideal instrument for J.S. Bach's keyboard music in the following way:

No instrument but one which should combine the volume of tone of the organ with the expressive quality of the clavichord, in due proportion, could be capable of reproducing the image which dwelt in the master's imagination when he composed for the clavier. Every one sees at once that the modern pianoforte is just such an instrument.<sup>43</sup>

As Morgan has pointed out, so strong was the need to maintain the currency of Bach's music that the composer was assumed capable of influencing future musical developments and of exploiting the properties of instruments not yet invented.<sup>44</sup> Although such sentiment may now be considered suspect in musicology, it persists in performance practice. Mutter, cited earlier regarding the violin, suggests that 'musicians like Mozart and Beethoven were [...] enormously ahead of their time. Beethoven certainly didn't compose for the fortepiano: he imagined the sound of the modern grand piano'.<sup>45</sup> Concert pianist Alicia de Rocha amplifies this view when asked if she has performed Beethoven on a contemporary instrument, such as a Broadwood: 'I have tried, but it is not right. This is the reason why he composed his best music after he had gone deaf'.<sup>46</sup> Of a Stradivari violin re-necked under the auspices of the Metropolitan Museum in New York, it was reported that 'the violin seems to sound better,

perhaps, in music of the 18<sup>th</sup> century than in the 17<sup>th</sup> century repertoire; Stradivari shows himself here as a forward-looking genius'.<sup>47</sup>

Eccentricity, as seen in a lack of inhibition to social constraints, is another element of the legendary. The Reverend Haweis, introducing the owner of a 17th-century Cremonese violin to Mr. William Ebsworth Hill, the 19th-century London restorer, describes the scene as follows:

[Hill] took no notice whatever; he remained absorbed in his delicate adjustments; and no Prince of the blood would have fared any better than we did until he had finished what he was about. [Then the instrument was ready for] the magician's inspection.

At last Hill laid down his tool, and taking the instrument in his hands, gave it one quick glance and a couple of taps; he then deliberately looked in its astonished owner's face, tore off the fingerboard, loosened the neck, and drove a knife under the belly. The fiddle was soon in pieces, and he threw the loose fragments aside in a heap, took up his repairs again, and said he would attend to the matter by-and-by, and the gentleman need not stop; and we got no more out of old Hill that day, who immediately became reabsorbed in his work.<sup>48</sup>

Haweis is painting with words a paradoxical portrait that encompasses contemptuousness of and indifference to both social position and the material upon which Hill works, together with exemplary craftsmanship and dedication. The result is eccentric, and the portrait is of genius. By referring to Hill as 'the magician', Haweis is invoking a legendary image.

#### **4.4.3 Arcane Practice**

References to arcane practice are a further element of subjective attribution. Documentary sources are dominated by discussion, analysis, and experimentation on the purported lost secrets of violin making of the 17th and 18th centuries in Cremona, although sources on the materials and techniques of other instruments also occur to a lesser extent.

In discussing violin restoration, physicist Tibor Csokonai makes the statement that ‘the expert knowledge of the greatest masters like Amati, Stradivari and Guarneri has been handed down from father to son, from master to apprentice as a profound secret’.<sup>49</sup>

Researchers exploring the use of pozzuolana volcanic ash, or Roman hydraulic cement, as a treatment for the wood of Cremonese violins, state that ‘there has long been speculation about the methods and materials used by the seventeenth and eighteenth century schools of Italian violin makers’.<sup>50</sup> In emulation of Proust, a French publication is entitled ‘A la Recherche du Vernis Perdu’.<sup>51</sup>

The varnish used by the bowed string instrument-makers of Cremona in the 17th and 18th centuries has been the subject of research and speculation since the 19th century. The Hill brothers effectively dispelled ‘the mystery in which the subject has been involved by the ever-ready pens and fluent tongues of the many self-constituted authorities’ in 1902 by stating that ‘the recipe of the varnish employed by Stradivari is still in existence’.<sup>52</sup> They further criticise the ‘erroneous views disseminated concerning [the varnish’s] magical properties’.<sup>53</sup> Even the highly romantic Haweis, writing during the same period, states simply that ‘the trick of mixing it got lost along with the stuff to be mixed, and the Cremonese secret, once an open secret, lapsed and lapsed, as it seems, irrecoverably’.<sup>54</sup> So, while allowing the romance of the lost secret, he hardly subscribes to the prevalent view that the recipe of the varnish had never been widely known. More recently, a compendium of musical instrument varnish recipes, accumulated from widely separated geographical sources, demonstrates the openness of information on the subject.<sup>55</sup>

In spite of such attempts to deconstruct the mythology of violin varnish, the mystery exercises a continuing fascination among scientists. For example, a Texas researcher is reported to have ‘uncovered secrets that have mystified violin makers for 200 years and prevented them from precisely duplicating the master’s instruments’.<sup>56</sup> The discovery involves boiling the exoskeletons of shrimps into a varnish. Under the heading ‘Old tunes on a new fiddle’, it is reported of the same research that ‘so important is the [...] varnish that modern instruments of indifferent quality are transformed by treatment with it’.<sup>57</sup> The same researcher further found traces of ‘gold, silver, and vanadium which he attributed to alchemists of the time who were consulted on preserving the woods’.<sup>58</sup> In another recent study, slivers of varnish ‘shed during restoration’ were examined by optical microscopy and five analytical instrumental methods in the hope of assisting ‘modern-day violin makers in duplicating Stradivarius’ techniques’.<sup>59</sup> In a similar vein, the performance characteristics of early brass instruments have been attributed to lost arts of production, and to a secret ingredient added to the alloy by foundries working before the Industrial Revolution.<sup>60</sup>

#### 4.5 SUMMARY

The base assumption in the Currency regimen is that the historic musical instrument must be maintained in a functioning state. The emergence of the regimen from a lower class craft tradition of musical instrument repair and maintenance is characterized by a lack of specific documentation. Maintenance is defined very widely to include all craft activity aimed at keeping instruments current. It is distinguished very clearly from restoration, which is detailed in the next chapter. As the craft tradition of maintaining instruments in working

condition passed through the 19th century, subjective attributes appeared, focussing the rationales for action upon instruments in this regimen.

## NOTES

1. Morel, René, transcript of interview, 12 September 1996.
2. Lowenthal, p. 52.
3. *ibid.*
4. Morgan, p. 58.
5. Morgan, pp. 67-68.
6. Morgan, p. 68.
7. Lowenthal, p. 61.
8. Hill, et al., pp. 203-204.
9. Boyden, p. 125.
10. Boyden, pp. 124-125.
11. O'Brien, 'Ruckers', p. 463.
12. O'Brien, 'Ruckers', pp. 463-464.
13. *ibid.*
14. Fischer, p. 70.
15. Barclay, 'Manufacture', p. 25.
16. Roberts, pp. 17-25.
17. Carr, pp. 1-40. Controversy over the projected restoration of the Schnitger organ in the Der Aa-Kerk resulted in the formation, in 1998, of The Foundation for the Protection of the Main Organ of the Der Aa-Kerk (*Stichting tot Bescherming van het Hoofdorgel van de Der Aa-Kerk*).
18. Frank, et. al., pp. 32-37.

19. The term 'subjective' is used here in the sense of phenomena which 'exist only in the mind of him who judges'. (Williams, *Keywords*, p. 311.)
20. Williams, *Keywords*, p. 275.
21. Maquet, *Aesthetic*, p. 172.
22. Wynne-Davies, p. 859.
23. Ruskin, *Stones*, vol. 1, p. vii.
24. Wynne-Davis, p. 521.
25. Ruskin, *Painters*, p. 154.
26. Ruskin, *Painters*, p. 275.
27. In his book *Music and Morals*, Haweis champions an unquestioned canon of musical behaviour. It is to be noted that the views of Haweis are generally considered radical, if not irrational. However, the point to be made here is that such views reflect the background of opinion and, after appearing in print, achieve currency and become entertained, if not wholly accepted.
28. Haweis, *Violins*, p. 7.
29. Haweis, *Violins*, pp. 12-13.
30. Haweis, *Violins*, pp. 13-14.
31. Hill, et. al., p. 239.
32. The Canadian Press, 'Gifted young violinists win loans to awaken sleeping Stradivariuses', *The Ottawa Citizen*, 12 September 1997, p. E4.
33. Pinzauti, p. 132.
34. Haskell, p. 24.
35. Campbell, p. 126.
36. Frank, et. al., p. 34.
37. Beuth, p. 73.
38. Beuth, p. 74. Later in the interview Ms. Mutter rather contradicts this comment by stating that 'I wouldn't have let my fiddle out of my hands for anything' (p. 75).
39. Ritz, p. 15.

40. *ibid.*
41. Williams, *Keywords*, p. 275.
42. Maquet, *Aesthetic*, p. 172.
43. Spitta, p. 44. (Quoted in Morgan, p. 68.)
44. Morgan, p. 68.
45. Beuth, p. 74.
46. Tilson Thomas, Michael, transcript of interview on *Concerto*, BBC Television, 22 August 1993.
47. Libin, p. 37.
48. Haweis, *Violins*, pp. 136-137.
49. Csokonai, p. 114.
50. Barlow, p. 313.
51. Colombo, pp. 46-55.
52. Hill, et. al., pp. 166-167.
53. Hill, et. al., pp. 159-160.
54. Haweis, *Violins*, p. 152.
55. Fontana, et. al.
56. Alper, p. 38.
57. Lipsius, F., 'Old tunes on a new fiddle', *The Sunday Times*, 11 March 1984.
58. *ibid.* Vanadium was first isolated in 1801, when Andrés del Rio extracted it from its ore.
59. Anon, 'The Music of a Stradivarius', *Microscopy*, Spring 1995, p. 11.
60. Thein, pp. 377-404.

## CHAPTER FIVE - RESTITUTION

The regimen of Restitution was defined briefly in Section 1.2: the instrument is ‘returned to’ and maintained in a state that is assumed to represent some previous period of its existence. Instruments in this regimen are obsolete and in degraded condition, and craft action upon them is defined as *restoration followed by maintenance*. This chapter completes the definition of Restitution, showing how actions taken on historic musical instruments to satisfy the goal of finding these ‘earlier states’, and the rationales underscoring these actions, fall into this regimen. Restitution is characterized by a growing interest, commencing in the 19th century, for the performance of early music on period instruments. Consciousness of the place of the material object in history, and of its fragility and evanescence, became prominent in the 19th century, and is particularly well demonstrated in sources relating to architectural elements. Restitution is contrasted here with Currency, in which objects may be equally treasured, but are adapted to the taste and functions of the time through maintenance.

### 5.1 MUSICAL FUNCTION

As with Currency, it is assumed that the instrument must function musically, although within this regimen the aims and values espoused are very different. Because of the need to perform music on ‘original’ instruments, physical refurbishment to a determined previous state is a critical necessity. Like Currency (and in opposition to Preservation, which follows) this regimen is based upon the craft activity of musical instrument making, repair, and restoration.



## **5.2 THE NATURE OF SOURCES**

As discussed in Sections 3.2 and 3.3, because of the origins of the craft tradition, Restitution, like Currency, is initially non-textual. As the practice of restoration of early instruments developed from the craft tradition of general repair and maintenance, it carried with it the low emphasis on the written record. The emphasis of the early music revival, especially in the latter half of the 20th century, upon scholarly study and elucidation of workshop technique, resulted in an increase in both quality and quantity of publications. These writings were generally focussed on historical research, and did not usually constitute a record of current treatment.

## **5.3 DEFINITION OF RESTORATION**

In current usage, the action of attempting to return an object to a previous state is referred to as restoration. However, restoration can have other contradictory meanings, and the term underwent changes of meaning throughout the 19th and into the 20th centuries. It is useful to examine the term restoration in its historical context because this reveals the divergence of critical opinion and practice in the 19th century that led to the foundation of the parallel, but interrelated, discipline of conservation.

Thinking on the subject became polarized in the middle of the 19th century when destruction of architectural elements was reported to have taken place in the name of restoration. This state of affairs was brought to the attention of the London Society of Antiquaries in 1855 in a

memorandum strongly urging that no restoration be undertaken unless ‘the word “restoration” may be understood in the sense of preservation from further injuries by time or negligence’.<sup>1</sup> The Society established a ‘Conservation Fund’ to assist its advocacy in preserving ancient monuments from intervention.<sup>2</sup> In a contemporary commentary, John Ruskin defines restoration as follows:

Neither by the public, nor by those who have the care of public monuments, is the true meaning of the word *restoration* understood. It means the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered; a destruction accompanied with false description of the thing destroyed.<sup>3</sup>

The polemical tenor of this view is a reflection of the violent antagonism between the Anti-Restoration movement, of which Ruskin and William Morris were key members, and the restorers of the school of Eugène-Emmanuel Viollet-le-Duc.<sup>4</sup> In the introduction to an article in the *Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle*, Viollet-Le-Duc wrote of restoration that:

Both the word and the thing are modern. To restore an edifice means neither to maintain it, nor to repair it, nor to rebuild it; it means to reestablish it in a finished state, which may in fact never have actually existed at any given time.<sup>5</sup>

The polarity of views evident in such conflicting statements suggests a maturing of awareness, and signals the beginning of the rift between restoration as a creative and interpretive action, and what would become conservation as historical criticism.

Since the adoption of the memorandum on restoration by the Society of Antiquaries in 1855, further references are made to the damage inflicted by restoration. Presentations to the Society on the effects of restoration include: the removal of a chancel screen at Wakefield,<sup>6</sup> the restoration of the roof of St. Alban's Abbey,<sup>7</sup> the presentation of a Bill for the Preservation of Ancient Monuments to the House of Commons,<sup>8</sup> Church restoration in

Wales,<sup>9</sup> the destructive restoration of stained glass in Westminster Abbey,<sup>10</sup> the restoration of Lichfield Cathedral,<sup>11</sup> and the preservation of stone crosses.<sup>12</sup> Musical instruments were presented to the meetings of the Society of Antiquaries from time to time -- the work of keyboard instrument maker Burkat Schudi<sup>13</sup>, the portable organ at Canterbury Cathedral,<sup>14</sup> and the Chester recorders,<sup>15</sup> -- but no mention is made in any of these presentations of either condition or treatment.

While consciousness is raised from the middle of the 19th century upon the vulnerability of the architectural heritage, the changes resulting from the treatment on the class of functional objects, in which musical instruments are included, tend not to be emphasised. This is exemplified by the comments of the Rev. J.T. Fowler regarding on-going restorations in Durham Cathedral in 1874:

As the organ, which was built by Father Smith in 1684, is, after having suffered many things at various times, now undergoing a complete reconstruction, it may be well to place on record the following notes of the decoration of the pipes which I fortunately took before their removal.<sup>16</sup>

There follows a brief description. Significant in this quotation is the apparent disposal of the pipes, and the fact that their decoration is recorded in some detail, but no reference is made to their musical qualities, methods of construction, or tuning. Interest lies in the decorative aspect of the pipes in their architectural setting. There is a clear demarcation evident, through the 19th century and into the 20th, between what is done in the name of restoration to architectural elements, and what is done to functioning objects such as musical instruments. Thus, deployment and definition of the term restoration becomes increasingly contextual. Treatment not considered ethical in one field (e.g. architecture) may be condoned in another (musical instruments).

The current dictionary definition of restore is ‘to bring back to the original state; to improve, repair, or retouch (a thing) so as to bring it back to its original condition’.<sup>17</sup> However, keyboard instrument specialist Mimi Waitzman argues that restoration actually carries a musical instrument further from its origin, not nearer: ‘The fact remains that every restoration, no matter how well-documented or sympathetic, wipes away evidence and makes the original condition, one condition more remote.’<sup>18</sup> Restoration is defined in the conservation code of ethics, in part, as ‘all actions taken to modify the existing materials and structure of a cultural property to represent a known earlier state’.<sup>19</sup> The word ‘represent’ is used to clarify intent; while the dictionary states that the object undergoing restoration *is* returned to an ‘original’ state, the conservation code of ethics makes it clear that the resulting condition is a *representation* of the original state.

Concerning the restoration and interpretation of works of art in general, art historian Paul Philippot has stated that ‘by treating a monument as a simple historical document, the integration of the object into our era takes place at the cost of a reduction of our relationship to the object to the level of mere knowledge’.<sup>20</sup> He argues that the action of not intervening in the presentation of a cultural object results in a ‘refusal to recognize its very specificity’.<sup>21</sup> To this end, policies of presentation have been developed in the restoration of works of art that, ‘while keeping to the requirements of historical criticism, comply also with those of the work of art as actual aesthetic presence’.<sup>22</sup> Thus, a degree of physical reintegration is justified in expressing the humanistic values of the artifact while still maintaining its presence as an historical document. Playing policies for musical instruments in the Restitution regimen carry Philippot’s interpretation into the realm of functioning objects. Reintegration of the

functioning aspects of musical instruments is seen as a way of maintaining their aesthetic presence.

As examples, at the Bate Collection of the Faculty of Music of Oxford University, an Adam Beyer square piano dating from 1779 is ‘untouched since that date [and] still in perfect working order [...] we tune it regularly and keep it working as the maker intended’.<sup>23</sup> Finchcocks, a keyboard instrument collection in an 18th century manor house in Kent, is ‘musical, not visual. It is, above all, a playing collection and its over-riding aim is to bring the music of different periods to life’.<sup>24</sup> According to these views, the antithesis of such policies would be to consign an instrument to the kind of museum that is ‘a temple of silence where it may be conserved as a piece of furniture, its musical function forgotten’.<sup>25</sup>

As the above discussion shows, depending upon both date and context, the word restoration can have diverse meanings. In 19th century usage it can be taken to mean ‘preservation from further injuries by time or negligence’,<sup>26</sup> ‘destruction accompanied with false description of the thing destroyed’,<sup>27</sup> or ‘to reestablish [...] in a finished state which may in fact never have actually existed at any given time’.<sup>28</sup> These markedly different interpretations reflect the emotional content of debate on the subject. Twentieth-century usage is much less polarized, favouring ‘to bring back to the original state’,<sup>29</sup> or ‘to represent a known earlier state’,<sup>30</sup> depending upon whether the word appears in common usage, or is applied specifically to the treatment of artefacts. In this work, the definition put forward by the conservation profession -- ‘to represent a known earlier state’ -- is used when discussing craft actions on historic instruments.

## 5.4 THE VALUES OF RESTITUTION

Two questions will be asked during the critical analysis of the case studies that follow: what action has been taken on the instrument, and upon what rationale is the action based? As with the discussion of Currency in the previous chapter, it is helpful to derive unique key values so that action and rationale can be examined in context. Restoration involves the intent ‘to represent a known earlier state’.<sup>31</sup> The return of an instrument to a projected previous state, and its subsequent use in that state, imply a clearly articulated concept of a definitive earlier state, and the necessary facilities to carry it through. It is epitomised by the statement that *‘car restaurer un instrument, c’est préserver ou retrouver sa structure ancienne et son timbre authentique’*.<sup>32</sup> Restitution is based in craft activity, and it presupposes action upon the materials of fabrication of the instrument.

In Section 4.3.1 it was shown that of Lowenthal’s four valued attributes of the past -- antiquity, continuity, termination, and sequence<sup>33</sup> -- continuity provided a key value to Currency. Continuity ‘implies a living past bound up with the present, not one exotically different or obsolete’.<sup>34</sup> Antiquity provides the antithesis to this sentiment; while the modernizing thrust of Currency is ‘profoundly anti-escapist’, Restitution is the opposite in pursuing a release from current values.<sup>35</sup> By returning the musical instrument to a functioning representation of a previous state, and by its on-going maintenance for the purposes of exploring music contemporary with the earlier state, the ‘chief use [of antiquity is] to root credentials in the past’.<sup>36</sup> This process is, in essence, the driving force behind ‘authentic’ music performance, and thus from Lowenthal’s definition of antiquity, the first value of

Restitution, ‘authentic experience’, is defined. The second value of Restitution is defined as ‘positivistic thinking’, because the pursuit of authentic experience relies for its fulfilment upon empirical data. The certainty with which attempts are made to recover a previous state through craft action indicates a belief in a single historical truth. These two values are explored in detail below.

#### **5.4.1 Authentic Experience**

Lowenthal’s term ‘antiquity’ is replaced by ‘authentic experience’ in this work, because the set of ideas and aspirations that the latter encompasses is more specific to early music.

However, authenticity is a perilous word to use nowadays without very close definition. The term has been widely used in the early music revival to signify the search for and the realization of earlier musical values. But authenticity as a concept has undergone an expansion and a consequent dilution of meaning since it first came to be used to signify the values of the early music movement. Richard Taruskin points out that ‘nowadays, in the area of musical performance, it sometimes seems as if authenticity, as a word and as a concept, has been stood on its head’.<sup>37</sup> As one example of many, performances of baroque music advertised as ‘authentic’ and performed on ‘period instruments’ regularly employ recently-invented brass instruments that have no historical antecedents. The natural trumpet, the historically appropriate instrument of the 17th and 18th centuries, is almost never heard in concert or recording.<sup>38</sup> Taruskin further argues that the word authenticity ‘needs either to be rescued from its current purveyors or to be dropped by those who would aspire to the values it properly signifies’.<sup>39</sup>

The term authentic experience as it is used in this work refers to more than just objective, knowledge-based information derived from the study of historic musical instruments, and from the realisation of their function in an historical context. It is also important to capture with the term the subjective component arising from the experience of trying to recreate past experiences. Such attempted recapture of past experience is discussed by philosopher Christopher Cherry in his analysis of the way in which the past is apprehended.<sup>40</sup> It is his opinion that the familiar sense of being profoundly distanced from the past is misrepresented as being epistemic in origin, as a cognitive deficit due to a lack of information. He argues, however, that ‘any possible epistemic relationship, no matter how intimate, fails to satisfy’.<sup>41</sup> The sense of estrangement from the past persists, even in the presence of historical knowledge. Through this he identifies a difference between knowing the past, and wishing to retrieve it.<sup>42</sup> He defines a sense of the ‘gulf separating the here-and-now and the over-and-done-with’, and he labels the sensation resulting from its contemplation the ‘aesthetic’.<sup>43</sup>

An example of this essentially subjective component of authentic experience is provided by John Watson, keyboard conservation specialist at Colonial Williamsburg in Virginia. In a key quotation, which will be reintroduced later in this work, he describes the artistic impact of playing upon an historic instrument:

Playing Beethoven on an early nineteenth century piano, one cannot help imagining the day when the same instrument took part in the creative process of Beethoven’s contemporaries if not the composer himself. This represents a profound opportunity to step into a dimension of the cultural landscape from which the music originated.<sup>44</sup>

This process of entering a ‘cultural landscape’ is bound up with the concept of authentic experience as it is seen here. In attempting to elicit this experience of past phases in the use of a musical instrument by auditory and tactile means, the experience of authenticity is



clearly very personal and highly subjective. It is also essential that the instrument being used as the intermediary -- the medium through which the experience is channelled and moderated -- be regarded by the player as genuine, or original. As Cary Karp, then curator at the Musikmuseet in Stockholm, stated regarding practices with museum instruments during the opening decades of the early music movement: 'no performance or recording of the music of an earlier period was accepted as being authentic unless it was made on original period instruments.'<sup>45</sup>

Use of period instruments, not replicas, is the collection policy of Finchcocks, the keyboard instrument centre referred to earlier. An unequivocal statement upon the aesthetic impact of the original instrument is made:

The policy has always been that the instruments were intended to be played and heard, and the only true way to understand the music of the classical masters is to experience directly the instruments for which it was written.<sup>46</sup>

Direct experience appears to preclude the use of copies. Thus, the 'aesthetic' sensation defined by Cherry, which results from the attempt to step into the 'cultural landscape' described by Watson, coupled with the necessity of direct experience of the instruments for which the music was written, all contribute the subjective elements of authentic experience. It is not, therefore, simply an adherence to musical and historical data, but is intimately bound up with sensory experiences elicited from the instrument in its historic persona. Thus, when dealing with historic musical instruments, 'rooting credentials in the past',<sup>47</sup> which Lowenthal labels 'antiquity', encompasses a subjective and personal attempt to bridge the gulf between the past and the present.

### 5.4.2 Positivistic Thinking

Adherence to musical and historical data, and the focus upon the definitive previous state of the musical instrument, incorporate elements of positivistic thinking. Taruskin defines positivistic musicology as that which is ‘interested in letter, not spirit. It sets up research experiments [...] to be solved by applying rules of logic and evidence’.<sup>48</sup> It is argued here that the return of an early instrument to a previous historical state is analogous, and contains elements of this rationale; it is based in definitive knowledge of the earlier state through technical study and analysis, followed by craft intervention with the tools necessary to recreate the lost state.

The positivistic thinking alluded to here does not refer directly to the science of human society propounded by Auguste Comte and refined by John Stuart Mill, but to the cultural effects of its later popularization by such writers as Henry Thomas Buckle. Buckle stated in his *History of Civilization in England* that:

Whoever wishes to raise history to a level with other branches of knowledge, is met by a preliminary obstacle; since he is told that in the affairs of men there is something mysterious and providential, which makes them impervious to our investigations, and which will always hide from us our future course.<sup>49</sup>

Buckle argues that a scientific approach to historical study will overcome this obstacle. His contribution ‘was not to achieve new results in the sciences of history, but to popularize the belief in the possibility of applying scientific treatment to historical problems’.<sup>50</sup> Raymond Williams provides a good modern working definition of positivistic thinking as ‘the representation of facts without any admixture of theory or mythology’.<sup>51</sup>

Positivism in the performance of early music is encountered in attempts to strip away from the music later editorial accretions, and to arrive at a defined first state wherein the composer's intentions are understood and complied with. It is epitomised by Leopold von Ranke's dictum that 'the way it really was' is ultimately achievable.<sup>52</sup> In the treatment of historic musical instruments, the craft equivalent of positivistic musicology is the process of stripping away the physical accretions of time, use and changing fashion in an attempt to recapture an earlier disposition. Thus, restoration of an historic musical instrument is an attempt to discern the first functioning state (as defined in Section 1.1.2), or any pre-defined functioning state thereafter, by the application of craft techniques informed and guided by technical information. The chief assumption of such treatment is that previous states are capable of physical retrieval. As an example of the structure of thought surrounding decisions to seek the earlier states, keyboard scholar Denzil Wraight writes the following:

A little while ago it was considered appropriate to restore altered harpsichords back to their original condition, even if this meant, for example, dismantling much of an 18th-century French 'ravalement' of a Ruckers harpsichord. Since then we have come to feel that perhaps each historical stage is of value, and that we should only take an instrument back to its last historical state.<sup>53</sup>

Although withdrawing from the earlier assumption that the goal of restoration resides only in the first functioning state, Wraight still holds to the view that each historical stage is potentially recoverable.

### **5.4.3 The Didactic Element**

In addition to authentic experience and positivistic thought, there is a strong didactic element in the regimen of Restitution. Maintaining historic instruments in working condition is often

dictated by policies identifying the roles played by the instruments in teaching and training. As examples, the Finchcocks collection, referred to above, has an active tutorial policy, encouraging visits by school groups and individuals. It has been stated that ‘people are often astonished that small children are allowed to play on these museum pieces’.<sup>54</sup> Similarly, Fenton House, the repository of the Benton Fletcher collection, is open ‘to students of music who wish to obtain practice on the harpsichord, spinet, and clavichord’.<sup>55</sup> The plans of the Royal Academy of Music for a new exhibition building encompass a ‘living museum’ bringing together several existing working collections:

This will be no conventional museum: most of the instruments in the various collections are maintained in playing condition [and] will be available to Academy students and other qualified musicians as a hands-on resource for learning performance practice, instrument design and construction. Open to the public, each collection will also have a linked workshop where the historic instruments can be maintained and used as reference for new work. These units will in turn be supported by relevant Academy departments, with teaching and practice rooms, a recording studio, and a central salon for concerts, demonstrations and the display of prime objects from the various collections.<sup>56</sup>

Such policies upon the use of museum objects have 19th-century precedents. The collection in the Science Museum in London, described by Carl Engel in *Musical Instruments* of 1869, was kept in an environment where use of such items was an assumption. A report of 1854 by Henry Cole on the South Kensington Museum states that:

The museum is intended to be used, and to the utmost extent consistent with the preservation of the articles; and not only used physically, but to be taken about and lectured upon. For my own part, I venture to think that unless museums and galleries are made subservient to purposes of education, they dwindle into very sleepy and useless institutions.<sup>57</sup>

In all the above examples of policies that focus on function a strong element of instruction is evident. The collections are to be used as educational resources, and the element of didacticism within Restitution is clearly evident.

## 5.5 SUMMARY

Values associated with Restitution arose in the 19th century during an increasing interest in the exploration of past values in music. In this regimen musical function is an essential requirement of an instrument. Because Restitution developed from the underlying craft tradition, documentation of individual treatments is rare during the earlier period, but becomes more common later as exploration of instrument-making techniques becomes emphasised. The term restoration is most commonly used to describe the activities within Restitution, but its meaning varies with both period and context. It is defined here *only* as actions taken to reestablish a lost previous state. Two unique values have been identified which provide rationales for restorative action, and through which the Restitution regimen is characterized: the pursuit of authentic experience, and positivistic thinking in the technical search for earlier functioning states. In Restitution, musical instruments are regarded primarily as generators of musical sound because, without this, the essential aesthetic engagement of the player is absent.

## NOTES

1. *Proceedings of the Society of Antiquaries*, III, 1853-1856, pp. 185-186.
2. *Proceedings of the Society of Antiquaries*, III, 1853-1856, p. 185.
3. Ruskin, *Seven Lamps*, p. 161.
4. Vaccaro, p. 309.
5. Quoted in Price, et. al., p. 314.
6. *Proceedings of the Society of Antiquaries*, V, 1871-1873, p. 149.

7. *Proceedings of the Society of Antiquaries*, VII 1876-78, pp. 455-472.
8. *Proceedings of the Society of Antiquaries*, X, 1883-1885, pp. 285-286.
9. *Proceedings of the Society of Antiquaries*, XII, 1887-1889, pp. 37-38.
10. *Proceedings of the Society of Antiquaries*, XIII 1889-1891, pp. 158-159.
11. *Proceedings of the Society of Antiquaries*, XIV, 1891-1893, pp. 255-157.
12. *Proceedings of the Society of Antiquaries*, XII, 1889-1891, pp. 174-181 and pp. 241-245.
13. *Proceedings of the Society of Antiquaries*, XXIII, 1909-1911, pp. 201-210.
14. *Proceedings of the Society of Antiquaries*, XXIII, 1911-1913, pp. 7-10.
15. *Proceedings of the Society of Antiquaries*, XXIII, 1911-1913, pp. 117-124.
16. *Proceedings of the Society of Antiquaries*, VI, 1873-76, p. 177.
17. OED, XIII, p. 755.
18. Waitzman, p. 22. In both the OED definition and Waitzman's usage the term 'condition' is used, although what is actually meant is 'state'.
19. IIC-CG and CAPC, *Code of Ethics and Guidance for Practice*, p. 17.
20. Philippot, p. 225.
21. *ibid.*
22. *ibid.*
23. Montagu, p. 36.
24. Burnett, pp. 35-36.
25. Montagu, p. 36.
26. *Proceedings of the Society of Antiquaries*, III, 1853-1856, pp. 185-186.
27. Ruskin, *Seven Lamps*, p. 161.
28. Quoted in Price, et al., p. 314.
29. OED. XIII, p. 755.
30. IIC-CG and CAPC, *Code of Ethics and Guidance for Practice*, p. 17.

31. IIC -- CG and CAPC, *Code of Ethics and Guidance for Practice*, p. 17.
32. 'To restore an instrument is to preserve or recapture its earlier structure and its authentic sound' (Abondance, p. 10, col. 2).
33. Lowenthal, p. 52.
34. *ibid.*
35. Lowenthal, p. 61.
36. *ibid.*
37. Taruskin, 'Authenticity', p. 3.
38. Collins, pp. 11-15.
39. Taruskin, p. 3.
40. Cherry, pp. 67-78.
41. Cherry, p. 68.
42. *ibid.*
43. *ibid.*
44. Watson, pp. 74-75.
45. Karp, 'Museums', p. 179.
46. Burnett, pp. 35-36.
47. Lowenthal, p. 52.
48. Taruskin, *Text and Act*, p. 146.
49. Cited in Stern, p. 126.
50. *ibid.*
51. Williams, *Keywords*, pp. 238-239.
52. '*Als es wirklich gewesen*', quoted in Taruskin, *Text and Act*, p. 146.
53. Wraight, 'Conservation', p. 299.
54. Burnett, p. 36.

55. Russell, p. 3.

56. Price, 'Early Music', p. 559.

57. Quoted in Alexander, p. 159.



## CHAPTER SIX - PRESERVATION

The regimen of Preservation was defined briefly in Section 1.2 as: the current state of the instrument is respected, and it is preserved from further intervention. Instruments in this regimen are kept in a non-playing state, and action upon them is described as *conservation treatment*. This chapter describes the new valuation of historic objects and structures which arose in the 19th century, which resulted in a re-assessment of procedures and ethical approaches. It further describes the way in which the meaning of restoration underwent change, and how a new term, conservation, came into use. The term conservation, when used to describe the new discipline and to distinguish it from restoration, is shown to have been adopted only in the 20th century.

### 6.1 SUSPENSION OF MUSICAL FUNCTION

In the Currency and Restitution regimens, the continuing musical function of historic instruments is assumed. Preservation differs profoundly from these earlier regimens in its stance that musical function is detrimental. Playing of historic musical instruments implies initial treatment to bring them into working condition (restoration), followed by further treatment (maintenance) to address wear, damage and replacement of parts as they are played. A sense of guardianship implicit in Preservation reserves historic artefacts in a non-functioning state as sources of information.

## **6.2 THE NATURE OF SOURCES**

A chief characteristic differentiating the regimen of Preservation from both Currency and Restitution is its prime focus upon documentation. In the profession of conservation (which is discussed in detail in Section 6.3, below), descriptions of work performed on objects are essential to the conduct of social and technical transactions, and become permanently associated with the objects being treated. As outlined in Section 3.2.3, Preservation is heavily textual; it manifests its attitudes through codes of ethics and guidance for practice; through written, photographic and other forms of documentation; and through published papers on treatment procedures, analyses, and philosophical approaches. Within the area of historic musical instruments it boasts a plethora of articles, papers, books, colloquia, and conferences centred upon the dilemma of playing versus preservation, and of conservation versus restoration.

## **6.3 PRESERVATION AND CONSERVATION**

Preservation is synonymous with conservation, as the word has come to be understood in its relationship to the protection of material culture since the 19th century. However, preservation is the term chosen to describe this regimen for two reasons: firstly, it is a neutral terms and carries few of the connotations that have arisen in the dialectic between conservation and restoration and, secondly, it avoids the popular confusion with conservation in its wider, environmental context, as detailed below.

### 6.3.1 Conservation in Popular Understanding

Conservation, in the context of the active preservation of objects of cultural value, has not achieved currency in common usage due to the larger publicity and popular awareness that surrounds the environmental issues that share the term. For example, the 15th edition of the *Encyclopedia Britannica* devotes 23 pages to the natural environment under the entry for conservation, and makes no mention of the museum discipline.<sup>1</sup> Similarly, *World Books Encyclopedia* expends 17 pages in dealing only with conservation of the natural world.<sup>2</sup> The aims and practices of conservation as a museum discipline are also misunderstood within the museum profession itself. In commenting upon the role of the artefact in the museum, Charles Saumerez-Smith observes that:

Much conservation, although certainly not all, is based upon the premise that the artist's original vision of an artefact represents the most true and authentic appearance of that artefact [...] It is a species of contemporary arrogance which regards it as possible to reverse the process of history and return the artefact's appearance to exactly how it was when it popped out of its maker's hands.<sup>3</sup>

In assuming that the aim of conservation is the attempted return of objects to supposed earlier states, Saumerez-Smith is confusing the museum role of conservation with that of the restorer, from which it developed. If such a confusion is embraced by a commentator within the museum community, this indicates the extent to which the policies of the conservation profession are misunderstood.

The terms conservation and restoration, describing distinct disciplines, are unique to English. The museum discipline of conservation in most European languages is what in English is referred to as 'curation'.<sup>4</sup> On the other hand, the term restoration is used universally in

Europe to denote the process of treating objects, whether the aim be to stabilize or to return to a previous state.<sup>5</sup> Thus, in English there has existed a divergence where the fields of conservation and restoration continue as distinct entities.<sup>6</sup> ICOM has attempted to redress this problem with the creation of the hybrid term ‘conservator/restorer’ in its English language documents.<sup>7</sup>

It is because of the confusion and misunderstanding introduced by these varied definitions, that the more neutral term preservation has been chosen for the title of this regimen. Also, a central argument of this work is that there exist three regimens of activity, rather than the commonly understood simple polarity between conservation and restoration. Using the term ‘conservation’ as a descriptor of this regimen would introduce further confusion, rather than clarifying the situation.

### **6.3.2 The Development of the Conservation Discipline**

When the term conservation is used in the current museum context it is defined as:

All actions aimed at the safeguarding of cultural property for the future. The purpose of conservation is to study, record, retain and restore the culturally significant qualities of the object with the least possible intervention.<sup>8</sup>

The emphasis on limiting intervention is the key point. The concept of conservation in referring specifically to the preservation of material culture first occurs in the 19th century. The memorandum presented to the meeting of the London Society of Antiquaries in 1855, referred to in Section 5.3.1, outlines the destructive and misleading character of architectural restoration, stating that ‘a monument restored is frequently a monument destroyed’.<sup>9</sup> In

defining the word restoration 'in the sense of preservation from further injuries by time or negligence' the authors of the memorandum have produced a nascent definition of conservation.<sup>10</sup> The memorandum also mentions the institution of a 'Conservation Fund', an early occurrence of the word conservation in this context.<sup>11</sup>

The practical discipline which came to be called conservation developed in the 19th century with the aim of preserving significant objects from the effects of time and negligence. This represented a new direction in the care of collections; a thrust towards understanding and combatting deterioration through technical investigations into its cause, and later into the processes of treatment and their impact upon objects. The research of Michael Faraday, *On the Ventilation of Gas Burners*, in determining that the 'red-rot' deterioration observed on book leathers in the Library of the Athenaeum Club resulted from attack by atmospheric sulphur dioxide, is a pioneering example of science applied to the study of deterioration. Friedrich Rathgen's experimental work on artefacts in the last decade of the 19th century at the Chemical Laboratory of the Royal Museums of Berlin stimulated the investigation and elucidation of deterioration processes.<sup>12</sup> This work was translated into English in 1905, and had a significant influence on scientific work at the British Museum.<sup>13</sup> The identification and characterization of deterioration on museum objects stored underground during the First World War provided the museum preservation discipline with a further underpinning of scientific investigation.<sup>14</sup>

In particular, the work conducted at the British Museum in the 1920s by Alexander Scott of the Department of Scientific and Industrial Research, leads into the modern era. Although the

word conservation is not yet used to describe his activities, the introduction to Scott's Third Report of 1926 shows a forward-looking intention. He encourages collectors:

To feel that many valuable objects that seem irreparable on account of the condition into which they have fallen, are still worth endeavouring to preserve. Even if these endeavours should only be partially successful from the point of view of restoration, in almost every case details of manufacture will be revealed and light thrown upon the causes and mechanisms of decay, and these facts alone may prove worthy of being recorded, if for no other reason than to warn others in charge of similar specimens and faced with like problems.<sup>15</sup>

A conference in Rome, organized by the League of Nations in 1930, was the first venue for the discussion of the need for control of the museum environment, and other preventive measures aimed at ensuring the longevity of collections. This conference is generally regarded as the first international effort to place scientific research at the centre of the preservation of art works and antiquities.<sup>16</sup>

The discipline of preservation of museum objects grew rapidly in England in the period after the Second World War as a result of experimental studies, and through the scientific reassessment of the effects of deterioration and subsequent restorative treatment. The inauguration of the journal *Studies in Conservation* in October of 1952, and the appearance of Harold Plenderleith's *The Conservation of Antiquities and Works of Art* in 1956 signalled published legitimization of the term conservation as applied to the study and arrest of deterioration in works of art and artifacts.<sup>17</sup> Systematic abstraction of technical papers had commenced with *Technical Studies in the Field of Fine Arts*, produced by the Fogg Art Museum of Harvard University from 1932-42, and continued with *Abstracts of Technical Studies in Art and Archaeology*, produced by Freer Gallery of Art between 1943 and 1952.<sup>18</sup> It continues with *Art and Archaeology Technical Abstracts*, produced by the International

Institute for Conservation in association with the Getty Conservation Institute. All this evidence of dissemination of information shows that conservation had become an academic discipline. By the creation and encoding of its own terminology, ethics, standards and literature it had distanced itself from the lower class, largely oral tradition of restoration from which it had developed. As art historian Paul Philippot has remarked, ‘the expanding role of technological studies of works of art brought the practice of restoration and conservation from the level of traditional working-class artisanship to that of an exact science’.<sup>19</sup>

## 6.4 THE VALUES OF PRESERVATION

Two questions will be asked during the critical analysis of the case studies that follow: what action has been taken on the instrument, and upon what rationale is the action based? As with the discussions of Currency and Restitution in the previous two chapters, it is helpful to derive unique key values so that action and rationale can be examined in context.

In her examination of the societal values of the emerging conservation field, Miriam Clavir identifies the two key values of integrity and the scientific approach:

The first belief is that there is a fundamental importance accorded to preserving the integrity of objects and especially their physical integrity [...] The second belief is that a systematic scientific approach is the best way to preserve objects.<sup>20</sup>

Clavir assigns integrity to all actions that centre upon care, preservation and treatment of material objects in their physical, historical, and conceptual roles.<sup>21</sup> Elsewhere, she argues that the application of scientific principles to conservation deflects the focus away from the aesthetic being of the object, which remains the primary province of restoration.<sup>22</sup> This

paraphrases Philippot's view that the action of not intervening in treatment of the aesthetic attributes of an object results in a 'refusal to recognize its very specificity'.<sup>23</sup>

The scientific approach as a value is assigned by Clavir to the application of the scientific method in the treatment of culturally significant objects: 'It was based upon the belief that the nature of the universe constitutes an objective reality which can be understood by the application of scientific knowledge and methods.'<sup>24</sup> Since the use of the term 'scientific approach' tends to imply the application of instrumental techniques for the capture of data, and thus appears narrow when dealing with the wider social implications of treatment and continuing care of historic musical instruments, the term is replaced with 'pragmatic approach' in this work. This term implies the wider social context, and invokes the system of thought that underlies 'scientific' action. Thus, preservation is not exclusively practised by scientists, but it is conducted in a scientific manner. The sense in which 'pragmatic' is used here is that of 'pertaining to the study of events with emphasis on cause and effect'<sup>25</sup>, or 'the matter of fact treatment of things,'<sup>26</sup> and not specifically to the philosophical systems of Pierce and James.<sup>27</sup>

Thus, two values -- integrity and the pragmatic approach -- comprise the exclusive cultural markers used to indicate whether the conservation treatment and use of a musical instrument comes under the regimen of Preservation. These two values are examined in detail below.



### 6.4.1 Integrity

In the regimen of Preservation respect is found for the physical, historical, aesthetic, and conceptual integrity of the historic object when decisions on its material condition or state must be taken.<sup>28</sup> In Preservation there is a framework of encoded ethical practices, of which the intrinsic physical nature of the object is the centre; in short, the integrity of the artefact is respected by strictures and controls placed on craft practice, and it is not compromised by actions taken upon it. Integrity is therefore the antithesis of the values of both continuity and authentic experience discussed in Sections 4.3 and 5.3, where focus is upon the expression of the subjective qualities of the historic object through craft intervention. In the case of musical instruments, integrity is seen in the actions of conservation treatment, and preservation in a non-working state as an information resource, as opposed to actions taken to ensure musical function.

Scientific investigation of the effects of deterioration and craft intervention, coupled with a critical reappraisal of past treatments and their impact on works of art and artefacts, led to a conservative, non-interventive approach to heritage material. Such a contextual approach, promulgating a policy of maintaining status quo, is antithetical to the craft-driven regimens, where traditional craft practices are seen in the continuing reworking of early material. Thus, the critical appraisal of both restoration and maintenance actions that had taken place in the past, resulted in a collective desire not to be subject to similar critical appraisal in the future.

The scientific reappraisal of the treatment of artefacts, and its effect on criticism, shows a congruence with the positivistic reappraisal of early music. Concern for authenticity in the early music movement, in Robert Morgan's view, is a 'situation characterized by an extraordinary degree of insecurity, uncertainty and self-doubt -- in a word, by anxiety'.<sup>29</sup> He goes on to say that the movement 'can be understood as part of a more general crisis of identity characterizing modernity as a whole. It betrays both the self-consciousness and the sense of personal inadequacy endemic in an ever more complex and puzzling world'.<sup>30</sup> Raymond Leppard, too, identifies this loss of certainty; regarding the search for and the reinstatement of past values in music, he states that 'to seek confirmation that what has endured for years, maybe for centuries, and can still be counted valuable, would seem to suggest a sort of permanence when all else around shows very little indication of it'.<sup>31</sup> Haskell sees a 'hands off' attitude to the interpretation of early music which, again, is driven by a sensitivity to criticism.<sup>32</sup>

In parallel to these trends in early music is the 'hands off' attitude to museum objects, again driven by an anxiety to avoid negative criticism. This is attested to by the rising influence of the discipline of preventive conservation, the aim of which is to reduce the incidence and severity of agents which adversely affect artefacts. The term 'preventive conservation' could be considered tautological -- what is conservation if it is not preventive? However, the term has been coined to differentiate those actions taken, remote from the artefact, to arrest deterioration, from actions taken upon the artefact itself.<sup>33</sup> For example, control of the environment around a sensitive object in order to protect it from damage would be considered a preventive action, whereas treatment of the object to reduce its sensitivity to the

environment would be regarded as an interventive action. In short, one can either prevent a soundboard cracking by controlling relative humidity, or one can varnish it to achieve the same result. It is because of this need to distinguish remote action from local action that the element of tautology in the term 'preventive conservation' has arisen. A recent critique of the term indicates the extent to which the conservation agenda is driven by non-intervention.<sup>34</sup>

### *Reversibility*

Actions in the regimen of Currency pass usable objects on to the future by confident craft treatment, and the actions in Restitution are expressed in the search for an earlier state through craft intervention. In marked contrast to these two, integrity requires that technical action of any kind has no lasting consequences. Such a policy is effected by application of the principle of reversibility. Reversibility requires that an avenue of retreat be maintained for all actions taken upon objects. In examining reversibility as a legitimate goal of conservation treatment, Barbara Appelbaum states that it 'sets conservators apart from skilled restorers or repairers' and is 'one of the factors which establish our unique intent to project our work into the distant future'.<sup>35</sup> Integrity supports the aspiration that work done upon an object may be obliterated without trace in the future, should changes in epistemological reading of the object so dictate. Thus, if 'our work' is being projected into the future, it is done so with the present knowledge that, through the potential for reversibility, the physical signs of the work done upon the object will have no intrinsic value, and may be discarded.

The use of the term 'reversibility' in connection with the concept of permitting subsequent return to a previous state, appeared in the Murray Pease Report, which was adopted in 1963 by the IIC-AG, and became its published Code of Ethics in 1968.<sup>36</sup> Article II.5 states that:

The conservator is guided by and endeavours to apply the 'principle of reversibility' in his treatments. He avoids the use of materials which may become so intractable that their future removal could endanger the physical safety of the object.<sup>37</sup>

However, the concept that any treatment applied to an object could be reversed has changed in meaning and understanding since Murray Pease's application of it to conservation treatment processes. The dictionary definition of reversible is a) capable of being reversed or of reversing, or b) capable of going through a series of actions either backwards or forwards.<sup>38</sup> It is clear that by this definition no degree in reversibility is allowable; a process or a mechanical device is either capable of reversing, or it is not. Furthermore, the second law of thermodynamics implies that a quantity called entropy ensures irreversibility in all but purely mechanical actions.<sup>39</sup> And as Arthur Eddington stated so eloquently, 'if your theory is shown to be against the Second Law of Thermodynamics, I can give you no hope; there is nothing for it but to collapse in deepest humiliation'.<sup>40</sup>

It is clear that when used in the context of treatment actions on objects, the meaning of reversible carries no mechanical connotations, and is closer to that of removable. For example, when John Barnes discusses treatments of keyboard instruments with a view to allowing subsequent recovery of evidence of manufacturing techniques, he states that reversibility has gradations:

The survival of evidence is closely linked to the degree to which the treatment is reversible. This axiom should increase our interest in reversible processes and lead us

to realize that most so-called reversible processes are, in fact, only partially reversible.<sup>41</sup>

Appelbaum also states that ‘reversibility is not a simple “yes” or “no” proposition’, but that the concept supports degrees of reversibility.<sup>42</sup> Reversibility, as understood within the conservation field, therefore differs fundamentally from its common mechanical definition. And, because it appears in its conservation guise to run contrary to the second law of thermodynamics, it is, as Hellwig has argued, an ideal to which conservators may aspire, but never achieve.<sup>43</sup>

#### **6.4.2 The Pragmatic Approach**

The application of scientific methods to the analysis and documentation of historic objects results in a systematic approach based in objectivity. It is the policy of the discipline of conservation that instruments be maintained in a non-functional state, or at least that function be strictly controlled; function is regarded as detrimental to historical integrity.<sup>44</sup> Specific evidence of the pragmatic approach in the preservation of musical instruments is seen in the comparatively low value placed upon the tactile and auditory information derived through playing. A pragmatic approach argues that such information is a product of the present, and contains no information of value to the study of the past physical states of the instrument. In arguing for a change in the traditional role of the museum musical instrument, Cary Karp expresses the dichotomy between the aesthetic and the epistemic:

[The instrument’s] mode of communicating with us must be changed from that of the ephemeral object, which provides fleeting musical delight, to that of the immortal witness to the practices of the musical instrument makers of past generations.<sup>45</sup>

Here the results of playing the instrument are regarded simply as fleeting musical delight, and not as information in an historical context. Thus, in its emphasis on hard data, the pragmatic approach is antithetical to the subjective values implicit in authentic experience encountered in the regimen of Restitution. Playing the musical instrument for aesthetic experience is sharply distinguished from sounding it for the purposes of taking auditory and acoustical measurements. Odell and Karp make an argument for the potential of techniques for the acquisition of data from musical instruments without the need for playing. They provide brief descriptions of techniques for eliciting sounds from non-functioning woodwind and keyboard instruments.<sup>46</sup>

When Montagu likens the fate of an instrument in a pragmatic setting to installation in ‘a temple of silence where it may be conserved as a piece of furniture, its musical function forgotten’, he misunderstands the basic premise of the pragmatic approach, which is the derivation of musical information without the need for musical function.<sup>47</sup> The musical function is not forgotten, but simply transferred. Conservator John Watson argues for a search for the ‘historical voice’ of the musical instrument, resident in the information it holds, as opposed to its musical voice.<sup>48</sup> Although in aesthetic terms the musical function is implicit in the instrument’s playing status, in pragmatic terms it is embodied in the information that the instrument possesses. It is through application of the analytical and documentation methods of science that this information is extracted. Robert Portillo, curator of the Erich Lachmann Collection, provides a synopsis of techniques for the capture of such information.<sup>49</sup>

In discussing the documentary value of early keyboard instruments, Martin Scowronek states that 'we learn more from an authentic ruin than from a restored original'.<sup>50</sup> Karp summarises such a pragmatic point of view on the playing of historic instruments:

It is becoming obvious that restored older instruments do not necessarily behave or sound as they did when they were new. Since composers can reasonably have expected to hear their works performed on relatively new instruments -- certainly not on centuries old restored museum pieces -- the chronologically original instrument is not necessarily the musically authentic one.<sup>51</sup>

The pragmatic approach to the goal of recapturing tactile and auditory qualities from earlier functioning states of historic instruments is through the production of copies. Thus, 'rather than rendering these collections as playable as possible, thereby compromising both their material and documentary integrity, would it not be wiser to make them as copyable as possible'.<sup>52</sup> The copy may have embodied in it all the projected features of the original, when new, and thus will provide a much closer simulacrum than the restored original. A copy may also be used as a 'test bed' for further musical experimentation, in a way that would be inimical to a restored historic instrument. The current interest in the copying of historic instruments as an aspect of the pragmatic approach is such that an international conference was held on the subject.<sup>53</sup>

## **6.5 BENIGN NEGLECT**

Clearly, an historic instrument can only fit into the schema of Currency, Restitution or Preservation if action is actually taken upon it, because the regimen into which it fits is dictated by attitudes and approaches at the time of transactions. Action is taken upon the instrument because it is valued, whether for its utility in playing current music, its potential

for exploration of past music, or for its information value as an historic resource. To which regimen is the instrument assigned if no action is taken? In such a case, the transaction defaults to a form of passive preservation. However, this takes place in the absence of action, and can be likened to benign neglect. Such a form of passive preservation should not be confused with active conservation treatment, where actions based upon conscious rationales are taken to intervene on the instrument's behalf to ensure stable conditions, and long-term security. The maintenance of stable relative humidity for fragile wood mentioned above is an example of active conservation.

As an example of passive preservation, a letter written in 1868 by Mssrs. Broadwood makes the following observation on the condition of a harpsichord once owned by Georg Friedrich Handel:

As a musical instrument, this harpsichord has lived its life. It is not now capable of being tuned, and any attempt to improve the accord of it might prove disastrous by the sounding-board giving way altogether. It is, therefore, of consequence to the preservation of the woodwork that the tuning should not be attempted.<sup>54</sup>

Here preservation is recommended through force of necessity. The decision not to act is made through the potential for failure, due to complete collapse, should attempts be made to render the harpsichord playable, rather than through respect for the technical information the instrument may contain. The ideal is to restore to working condition; the practical position is to take no action. Passive preservation results.

Passive preservation is characteristically undocumented. It can be likened to the 'timeless and valueless limbo' that Thompson assigns to objects that are as yet undiscovered by society.<sup>55</sup> But, in the present case, the objects have already been valued by society, although while in



this state they are free of the social transactions that provide their context. Like Thompson's 'limbo', the boundary between passive preservation and the states that precede or follow it, is decided by social pressures.<sup>56</sup>

## 6.6 SUMMARY

The seeds of Preservation were sown in the 19th century in reaction to over-restoration, but it was not until the period between the two World Wars that science became an integral feature of the conservation ethos. Re-examination of damage associated with earlier treatments engendered a culture of anxiety and guardianship. Preservation is synonymous with the museum discipline of conservation, although the term conservation is not distinguished in popular understanding from the much more popular term restoration.

Within the regimen of Preservation historic musical instruments are considered in their historical, technical, and social contexts. Preservation represents conservation treatment in all efforts to stabilize and maintain instruments with the minimum of physical intervention. A framework of exploration, documentation, and interpretation is informed by respect for the fabric of the instrument and the transformations it has undergone over time. The values of integrity and the pragmatic approach are central to Preservation.

## NOTES

1. *Encyclopedia Britannica*, pp. 663-686.

2. *World Books Encyclopedia*, pp. 778-793.
3. Saumerez-Smith, p. 20.
4. French *conservation*, German *konserveirung*, Italian *conservazione*.
5. French *restauration*, German *restaurierung*, Italian *restauro*.
6. Barclay, 'The conservator', pp. 35-40.
7. von Imhoff, pp. 33-37.
8. IIC-CG and CAPC, *Code*, p. 16.
9. *Proceedings of the Society of Antiquaries of London*, Thursday, 3 May 1855, III 1853-1856, pp. 185-186.
10. *Proceedings of the Society of Antiquaries of London*, Thursday, 3 May 1855, III 1853-1856, p. 186.
11. *Proceedings of the Society of Antiquaries of London*, Thursday, 3 May 1855, III 1853-1856, p. 185.
12. Gilberg, pp. 105-120.
13. Gilberg, p. 106.
14. Oddy, pp. 13-14.
15. Scott, first report, p. 2.
16. Office International des Musées, pp. 126-130.
17. Plenderleith had already published *The Preservation of Antiquities* in 1934.
18. Cited in Murray Pease, p. 5.
19. Philippot, p. 217.
20. Clavir, 'Social and Historic', p. 1.
21. Clavir, 'Social and Historic', pp. 1-2.
22. Clavir, 'Factors', p. 9.
23. Philippot, p. 225.
24. Clavir, 'Social and Historic', p. 3.

25. OED, XII, p. 277.
26. *ibid.*
27. Williams, *Keywords*, p. 241.
28. IIC-CG and CAPC, *Code*, p. 5.
29. Morgan, p. 57.
30. Morgan, p. 78.
31. Leppard, p. 22.
32. Haskell, p. 185.
33. See, for example, Michalski, 'History' and 'Definition', p. 3. These articles introduce the terms of reference for a newly-formed Working Group of the Conservation Committee of the International Council of Museums.
34. Barclay, 'Guldbeck', pp. 3-8.
35. Appelbaum, p. 65.
36. *Murray Pease Report*, p. 63.
37. *ibid.*
38. OED, XIII, p. 825.
39. Coveney and Highfield, p. 33.
40. Eddington, p. 74.
41. Barnes, 'Restoration', p. 217.
42. Appelbaum, p. 71.
43. Hellwig, 'Reversibilität', p. 27.
44. The MGC publication, *Standards in the Museum Care of Musical Instruments*, outlines the extensive safeguards that surround musical instruments in the museum.
45. Karp, 'Museums', p. 181.
46. *ibid.*
47. Montagu, 'Clavichord', p. 36.

48. Watson, 'Voice', p. 35.
49. Portillo, pp. 20-21.
50. Scowronek, p. 29.
51. Karp, 'Museums', p. 179.
52. Karp, 'Museums', p. 180.
53. CIMCIM, *Copies*, 1996.
54. Quoted in Engel, p. 137.
55. Thompson, p. 10.
56. Thompson, p. 11.

## **CHAPTER SEVEN - METHODOLOGY OF THE CRITICAL ANALYSIS**

This chapter provides a summary of the schema of the three regimens described in Chapters 4, 5 and 6. The relationship between the three regimens is illustrated with a matrix, within which all actions upon historic musical instruments may be categorized. A sample case study is provided to show how the regimen in which a musical instrument is situated depends upon actions and their accompanying rationales. The five stages of critical analysis are then described, as a preparation for examination of the case studies.

### **7.1 THE SUPERIMPOSITION OF REGIMENS**

Over time, a superimposition of regimens takes place. It was shown in Chapter 4 that the basic craft activity of musical instrument repair and maintenance is overlaid with Currency, where the musical function of culturally valued historic instruments is ensured through continuing intervention with tools and materials. Towards the end of the 19th century, interest in the revival and reinterpretation of early music resulted in the introduction of the regimen of Restitution, described in Chapter 5, where conscious effort was made through craft intervention to return historic musical instruments to projected earlier states. Chapter 6 then describes the genesis of a consciousness of the physical integrity and information value of material objects which arose in the early decades of the 20th century, and resulted in the regimen of Preservation. Thus, the current situation arises, where there exist at the present

time three distinct and parallel regimens, each with its own adherents and characteristic *modus operandi*.

It is evident that the introduction of a new regimen does not displace or exclude the earlier one. The process is additive; the first regimen existed without competition until the second arose. This first regimen was not supplanted, but tended to exist alongside the second in parallel, each having its own practices, and its own adherents maintaining its viability. When the third regimen arose it, too, competed in parallel with those already existing. Thus, there is a tendency towards pluralism as more choice in the philosophical approach and actual treatment of historic instruments is offered.

## 7.2 THE MATRIX

Figure 1 (following page) illustrates the relationship of the six categories that constitute this schema in the form of a matrix, and briefly outlines their contents. The three regimens occupy the vertical axes, and their actions and rationales occupy the horizontal axes.

In order to demonstrate how actions taken upon an historic musical instrument at a turning point in its history are represented within the matrix, a sample case study is presented; a *pardessus de viole* (the smallest member of the viol family) from the Hôpital Général de Québec. The instrument upon which this sample case study is based actually exists, but only one of the potential regimens of treatment was ultimately followed. The instrument is

identified at a cusp of its life when decisions which fall into one of the three regimens of treatment must be taken.

	<b>Currency</b>	<b>Restitution</b>	<b>Preservation</b>
The actions adopted by those who subscribe to the values of a regimen.	The instrument's continuity is maintained through physical intervention. Alterations and improvements are made so the instrument can continue in use. The instrument can be transformed as the needs of the player dictate. All action is termed <i>maintenance</i> .	The historical context of the instrument is re-created by returning it to a projected previous state. Craft intervention results in alteration and substitution of the original materials. Action is termed <i>restoration and maintenance</i> .	The integrity of the instrument is preserved by maintaining its present state without indelible intervention. Scientific methods are employed to safeguard and document the instrument. Action is termed <i>conservation treatment</i> .
The rationale adopted by those who perform actions in a regimen.	Subjective attributes are assigned to the instrument, and achievements of makers and users are imbued with emotional value. Physical transformation of the instrument is not seen to interfere with its subjective attributes.	There is positivistic belief in the possibility of recapturing a definitive previous state of the instrument. The instrument is used as a medium in recreating a past cultural ambience.	Application of the scientific method to the study and preservation of the instrument reflects pragmatic thinking. Subjective responses are relegated to the status of current information.

Figure 1. Summary of Chapters 4, 5 and 6 in the form of a matrix.

According to the account of Nazaire LeVasseur (a commentator upon musical practice in 19th century Québec) masons working upon restorations in the Hôpital Général de Québec noticed that one wall of the room in which they were working sounded hollow.<sup>1</sup> From

LeVasseur's account, it is likely that this restoration work was being done around the year 1859.<sup>2</sup> The masons sought permission to investigate the hollow sound and, on demolishing the wall, found a *caveau* constructed for hiding provisions and other valuables during attacks by 'savages and, later on, the Anglo-Saxons'.<sup>3</sup> In this recess were 'a dozen' musical instruments of six strings, which LeVasseur says were identified as viols and bass viols made by Nicholas Bertrand, the early 18th century luthier of Paris.<sup>4</sup> Several of the instruments fell to pieces once exposed, but four remained in sound condition.<sup>5</sup>

### 7.2.1 Preservation

The Supérieure of the Hôpital was apparently not disposed to consider the cultural worth of the instruments, and so parcelled them out to several dealers, collectors, and musicians in Québec. She is described by LeVasseur as one who was 'not an antiquarian and had no interest in the curiosities of the world from the perspective of her cell'.<sup>6</sup> LeVasseur bemoans this lack of foresight from his own perspective of 60 years in the future, and furthermore blames the absence of a public museum in Québec City at that time on a lack of public spirit. It is for this reason, he says, that the historic relics of Québec 'fly to the four cardinal points of the continent'.<sup>7</sup> The only organization in Québec City that collected historical material systematically at that time was the English-speaking Literary and Historical Society of Quebec, which had been founded by Lord Dalhousie in 1824.<sup>8</sup>

This is the first cusp in the history of the viols since their discovery; they wait at a point where the decision of an individual dictates the regimen into which they will fall. Had the



instruments been either bequeathed to an institution or retained by the Hôpital, and been preserved from further intervention, the regimen of preservation would have been followed. In that case, the instruments would have been treasured for their intrinsic value as static signifiers of the early days of New France, and preserved in their found condition.

### 7.2.2 Currency

One of the instruments, a *pardessus de viole*, was given by the Supérieure to a blind resident of the Hôpital, a boy who played the violin exceptionally well. Joseph Lyonnais, a luthier of Québec City, furnished him with strings, resin and other needed items, and LeVasseur reports that the boy played Scottish reels, hornpipes, waltzes and *La Belle Catherine* upon the instrument using the four top strings. The viol did not work very well for him, however, so he approached Lyonnais again, and asked him to convert the instrument into a violin.<sup>9</sup> This is this second point of decision in the life of this instrument; the second cusp in the viol's fortunes.

Had Joseph Lyonnais taken the instrument into his repair shop and replaced the neck, so it could be played comfortably as a violin, the instrument would have fallen into the regimen of Currency. The projected conversion from viol to violin follows a long-established craft practice, common in the 19th century; a similar conversion of an English viol by Barak Norman into a violoncello is described by Berlin musical instrument restorer Olga Adelman.<sup>10</sup> The intention of such conversions is to maintain the instrument's continuity

through physical intervention. Irreversible alterations would have been made so that the instrument could continue in use, and it would have been transformed in consequence.

### 7.2.3 Restitution

Since most of the instruments recovered from the Hôpital had fallen to pieces once exposed, those surviving must have required extensive treatment in order to make them playable.<sup>11</sup>

This is borne out in the case of one of the instruments, the 1720 Bertrand bass viol which now bears, in addition to its maker's label, a manuscript label stating that [Joseph] Lyonnais had made repairs in 1865 and that his son, Roch, had made further repairs in 1916.<sup>12</sup>

LeVasseur describes the elder Lyonnais abandoning repair work on the bass viol due to the extreme porosity of the wood, and his son subsequently repairing the instrument completely using cotton ribbons and hide glue.<sup>13</sup>

Rather than following the blind boy's request by converting the *pardessus de viole* to a violin, Joseph Lyonnais offered a new small violin in exchange. In recounting this transaction, Lyonnais's son, Roch, cites the motivation for the trade being his father's opinion that the conversion would be impossible.<sup>14</sup> However, financial gain was probably an equal motivator. Three of the instruments had been purchased in 1864 by a Montreal merchant, William Snaith, for 50 dollars, a very large sum at that time.<sup>15</sup> He had bought three 'very old Instruments from the Ladies of the Convent of the Hospital General [...] who had imported them for use in the Convent choir, before the conquest of Canada'.<sup>16</sup> These three viols were later exported to the United States.<sup>17</sup>

Although no specific documentation of extensive treatment of the *pardessus de viole* exists, the provision of new strings, noted by LeVasseur, alone is indication of a desire for playability. Thus, the third point of decision in the *pardessus*' life occurs. The action points towards maintaining working condition, and the intervention to effect playability is considered a prerequisite of treatment of the surviving viols. The intention is to return the instruments to the state in which they were used before their incarceration, and to treat them as working, musical signifiers of a time before the English conquest of Canada. This action situates the *pardessus* and the other viols in the Restitution regimen.

#### **7.2.4 Demonstrating the Matrix**

Having charted the progress of the *pardessus de viole*, the potential stages in its history can be represented in the matrix already presented above. It has been shown that circumstances dictated that only one route for the instrument would be followed -- towards Restitution -- so the other two potential avenues of use therefore remain empty. They might have happened, but circumstances dictated that they did not. Nevertheless, this graphic presentation (following page) shows the way in which decisions upon the disposition of the instrument have an impact upon the regimen into which action upon it falls.

	Currency	Restitution	Preservation
The actions adopted by those who subscribe to the values of a regimen.	It was requested that the <i>pardessus de viole</i> be converted into a violin in order to make it easier to play and more easily useful for the owner's repertoire. <i>This plan was not carried out.</i>	The <i>pardessus de viole</i> was exchanged for a new violin, thus keeping it in its original state. <i>This was the path chosen.</i>	Had the Supérieure of the Hôpital recognised the historical attributes of the instrument it would have been preserved as a museum piece. <i>This direction was not followed.</i>
The rationale adopted by those who perform actions in a regimen.	Evidence of subjective rationales is absent from this record. The plan itself was not carried out, and its rationales remain obscure.	A definitive previous state of the viol is maintained. Although the commercial aspects of the transaction are evident, authenticity is the rationale.	At the period in which the transaction to museum status could have taken place, the climate of thought was predominantly towards use, rather than preservation.

Figure 2. Real and potential regimens in the history of the *pardessus de viole* from the Hôpital Général de Québec at one point in its history.

### 7.3 THE STAGES OF CRITICISM

The example of the viols from the Hôpital Général de Québec illustrates the decision-making process at key points, or cusps, in an instrument's history. Changes of status are a result of action, underscored by the rationale of attitudes and assumptions unique to the regimen in which the action takes place. Analysis of the reasoning behind the actions leads to clearer understanding of the thought processes in their context. Thus, the treatment that historic musical instruments have undergone can be related directly to underlying social values.

Analysis of the case studies presented in this work is conducted in five stages:

- locating an action taken on an instrument in one of the three regimens of the matrix;
- examining the action;
- examining the rationale;
- placing the action in its social/historical context; and
- identifying dissonances between and within regimens.

These five stages are examined in detail in the following sections.

### **7.3.1 Location in the Matrix**

The case studies and their accompanying analyses are presented in the following sections in three sets, each containing three case studies. It was shown in Chapters 4, 5 and 6 that the three regimens -- Currency, Restitution and Preservation -- are chronologically hierarchical. The base craft tradition in the treatment of historic musical instruments has Currency superimposed upon it initially, followed by Restitution, as cultural objects become consciously situated in history, and overlaid again by Preservation, as feelings for the full context of the object mature, and emphasis is placed upon the irreversible effects of physical intervention. One regimen overlies the previous one, but does not necessarily displace it.

It is in order to exploit this hierarchical structure, and to develop an understanding of the progressive, linear nature of developments through time, that the case studies are arranged in

three sets of three. The first set contains case studies that will be shown to fall primarily into the regimen of Currency. The second set contains studies in which the values of Restitution will be seen to overlie Currency. The third set will demonstrate the way in which the values of Currency, Restitution and Preservation interact with each other, to produce the complex modern dynamic of the historic instrument situated at a nexus of conflicting demands.

### **7.3.2 Action**

The matrix identifies two categories of values which are displayed in the horizontal axis; the uppermost of these represents the actions adopted by those who subscribe to the values of a regimen. Action can be motivated by the desire to maintain currency through continuing use, the desire to recapture past experience through restorative treatment, or the need to stabilize the object unchanged.

Craft intervention that transforms musical instruments comes into collision with the values of the school of thought that promotes preservation. Tension therefore arises through a dialectic between those who traditionally restore and repair instruments, and those who seek to preserve them as information resources. It is a tension perceived to be based in craftsmanship and, simply put, revolves around the question of whether or not to intervene with tools. On one side are the players and craftspeople, whose aim is musical function, and on the other side are those who seek to preserve the instruments for study and for posterity. However, when actions are more closely examined during critical analysis, a less polarized and more intricate situation becomes evident. Emphasis is placed upon discerning the nature of the

intervention contemplated and carried out. The action is therefore not isolated from the thought processes that dictate its context.

### **7.3.3 Rationale**

The lower horizontal category of the matrix represents the thought processes that dictate context; the rationales adopted by those who perform actions in the regimen. When examining rationales, the traditional tension between action and inaction described above is matched by a tension based in the fundamental dialectic of objective and subjective phenomena. The dilemma of whether to play or to preserve an historic instrument is characterized by the rationalization within the three regimens of the epistemic and the aesthetic or, in other words, of the objective and the subjective. The relative value of objective information derived from factual knowledge is contrasted with the relative value of subjective information arising from feelings and perceptions. Where expression of objective values dictates the terms, musical instruments are reserved in non-operating condition for study and analysis. Where subjective values hold sway, the musical attributes of instruments are exploited. The balance of the two opposing positions centred on these values, and the dialogue that arises, is as much an indicator of the regimen in which the instrument is situated as is the action taken upon it.

### 7.3.4 Context

Context in the critical analysis of case studies is of key importance. The Calendar of Sources in Chapter 2 is the chief reference for this section. Specific actions upon the historic instruments under study, and their underlying rationales, are related by means of documentary sources to prevailing attitudes and assumptions in the wider social sphere. The emphasis in providing a documentary context is not so much upon the influence these sources may have had on practices at the time of their formulation, as on their capacity to reflect the orthodoxies of the period under study. As an illustration, the existence of a conference where particular actions are either supported or denounced cannot always be said to have any immediate or lasting impact upon practices at the time it was convened. However, it can be said that the initiative in hosting the conference represents a swell of background opinion. The existence of the conference is itself reflective of the structure of thought at the time.

It must be emphasised that in this work the critique of individual actions is always situated in as full a context as possible. Because the research relies upon the documented actions of individuals, the lack of a clearly delineated context for their actions might result in blame being unfairly or incorrectly assigned. This is not the intention. The critical analysis is directed at social surroundings, and concentrates on both the larger systems of belief and the particular exigencies of time, place and circumstances, rather than the unmoderated actions of individuals. Therefore, when actions are viewed in their social context, individual culpability becomes relegated.<sup>18</sup>



### 7.3.5 Dissonances

The final step in the analysis is an examination of dissonances between rationales and actions within the three regimens. The term dissonance to describe inconsistencies between cognition and behaviour was formalized by Leon Festinger in his 1957 publication, *A Theory of Cognitive Dissonance*, in which the strategies people adopt to reduce the anxiety produced by such dissonances are analysed.<sup>19</sup> The dissonances discussed here are of two kinds: the first are seen in the emergence of opposing viewpoints between and among individuals and groups. Such opposing viewpoints serve an analytical purpose by providing a counterpoint; they throw the thinking behind decisions into a sharper relief. Thus, a treatment decision may be analysed by examining the dissonant rationales and actions expressed by adherents based in disparate regimens. For example, the violently conflicting values, referred to in Section 5.3.1, between the English Anti-Restoration movement and the restorers of Eugène-Emmanuel Viollet-le-Duc's school, provide insights into the nature of the dialectic at that time.

The second kind of dissonance is seen between the actions and rationales of individuals when they adopt conflicting values of opposing regimens. Because the three regimens are mutually exclusive, the adoption by individuals of views identified with differing regimens results in dissonance. This then provides a focus for critical analysis of actions. For example, if there is a thrust towards continuity in the upgrading and improvement of an instrument, while at the same time the musical results of treatment are discussed in historical terms, an inconsistency is evident. One can subscribe to either value, but not to both.

## NOTES

1. LeVasseur, p. 14.
2. In his account published in 1919, LeVasseur says that these events took place 60 years ago: '*il-y-a une soixantaine d'années aujourd'hui*', p. 14.
3. '*Des sauvages, et, plus tard, des Anglo Saxons*', LeVasseur, p. 14.
4. *ibid.*
5. In a recent critique of LeVasseur's account, "*Musique et Musiciens a Québec: Souvenirs d'un Amateur*" de Nazaire LeVasseur (1848-1927): *Étude Critique*', Vivianne Emond has studied the disposition and current location of these instruments and corrected many errors of dating.
6. '*Qui n'était pas une antiquaire et que les curiosités de ce monde n'intéressaient pas au fond de sa cellule*', LeVasseur, p. 15.
7. '*Opèrent constamment une fugue aux quatre points cardinaux du continent*', LeVasseur, p. 16.
8. Anon., *Literary and Historical Society of Quebec*, information brochure, undated.
9. LeVasseur, p. 15.
10. Adelman, p. 115.
11. LeVasseur, p. 14.
12. Emond, p. 39.
13. LeVasseur, p. 15.
14. *ibid.*
15. The account of this purchase is verified by LeVasseur, p. 15. These instruments are now in the Crosby Brown Collection at The Metropolitan Museum of Art in New York, catalogue numbers 1343, 1344, and 1345. (anon., *Catalogue of the Crosby Brown Collection*..., pp. 64-66.)
16. Snaith, William, letters to The Metropolitan Museum, 19 December 1898 and 2 January 1899, archives of The Metropolitan Museum, New York.
17. *ibid.*

18. A very important component of this research was the feedback provided by those who offered information for the case studies on the instruments under their care. All respondents were offered the opportunity to review the completed case studies. This process often resulted in further information pertaining to context.

19. Festinger, p. 2.

## **CHAPTER EIGHT - CRITICAL ANALYSIS: CURRENCY**

This chapter focuses upon three case studies in which the values of Currency predominate -- a barrel organ made by Richard Coates in the Sharon Temple, Ontario, a Steinway piano once owned by Glenn Gould, and which is now in Rideau Hall in Ottawa, and the University of Saskatchewan's quartet of Amati bowed string instruments. The values of the regimen of Currency are seen in maintenance actions taken to ensure continuity, and in rationales based upon subjective criteria.

### **8.1 COATES BARREL ORGAN**

#### **8.1.1 Introduction**

This barrel organ is said to have been the first instrument built by Richard Coates around 1819 or 20.<sup>1</sup> Coates was a band master in the British Army who had aligned himself with the breakaway Quaker sect known as the Children of Peace who had settled in the area of Hope, Ontario at the beginning of the 19th century.<sup>2</sup> Hope was soon renamed Sharon as the sect gained a firm footing in the locale. The organ was commissioned by David Willson, the leader of the Children of Peace. The barrel organ was originally installed in the Meeting House, a building designed and constructed by Ebenezer Doan for the Sect's worship. Once the sect was well established other buildings were erected, and a new keyboard organ was commissioned from Coates. This was installed in the Meeting House, while the barrel organ was moved to a specially designed Study, a small building devoted to David Willson's

intellectual activities.<sup>3</sup> Once moved it became set aside for his exclusive use.<sup>4</sup> Two barrels are known to have been used with the instrument, each having ten tunes<sup>5</sup>. The majority of these were melodies popular at the time, some with a religious base, and a few secular.

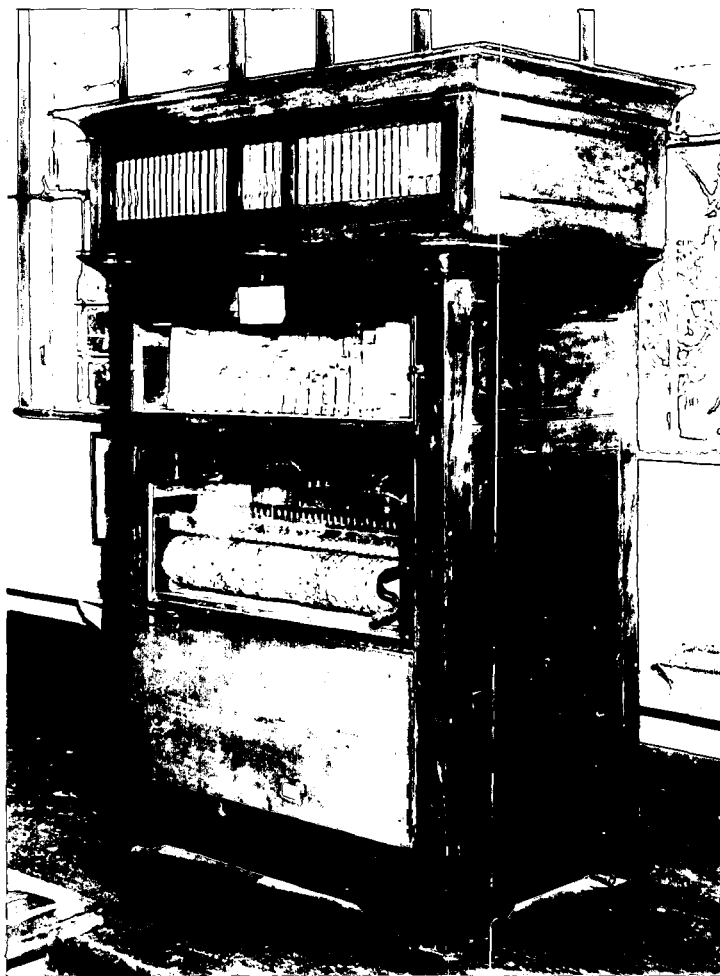


Figure 3. The Coates barrel organ in the Sharon Temple. The mechanism and pipes have been covered with detachable Perspex panels.

It is unclear exactly what parts of the instrument were actually made by Coates and how much of the mechanism was purchased from manufacturers in Europe or the United States. There are several points around which discussion focusses. Firstly, the casework is of pine, grained to appear like mahogany, and is of local construction, judging by the similarity in

workmanship to the later keyboard organ built by Coates and still in the Sharon Temple. Secondly, the framework of the mechanism is entirely separate from the outer case (as is usual) and is made of English oak (*quercus* sp)<sup>6</sup>. White oak (*quercus* sp) was available locally in very small quantities, but is not likely to have been favoured over maple or birch, which were in plentiful supply. Of 1,294 recorded pieces of furniture of 19th-century Ontario provenance, only nine have oak as their primary construction wood.<sup>7</sup> Such features as the slider mechanism that locks the barrel being played into place, and the winding crank which rotates it, betray English workmanship.<sup>8</sup> It is not known if the pipework is Coates's own work, although if the barrel operating mechanism originated in Europe, the ranks of pipes may have been supplied with it. It has also been suggested that the instrument was originally a keyboard organ, later fitted out for barrel operation.<sup>9</sup>

The barrels are generally assumed to have been made and pinned by Coates. Their techniques of manufacture and the process of pinning are described by Payzant.<sup>10</sup> Coates's choice of tunes, and his *modus operandi* are discussed by Barbara Ann Schau.<sup>11</sup> The barrels are covered with paper, through which the bridges and pins have been inserted, in the manner of manufactured European barrels.<sup>12</sup> Only one of the tunes on the barrels, 'China', does not appear in an English source.<sup>13</sup>

After the dissolution of the Children of Peace in the 1880s, the organ passed into private ownership, until it was donated to the York Pioneer and Historical Society in 1953. The instrument underwent several phases of treatment after this acquisition, including a

renovation between 1975 and 1979, and further treatment ending in 1984. The organ was used in concerts and re-enactments of the sect's activities until the late 1980s.

From the above introduction, four distinct periods in the history of the Coates organ are identified:

- Use by the Children of Peace
- Interim period
- Renovation 1975-79
- Renovation ending in 1984

The history of the instrument is documented in detail below, and activity within these periods is analysed.

### **8.1.2 First Period: Use by the Children of Peace**

#### **History**

Little is known concerning the original state of the instrument when it was installed in the Meeting House, except what can be gleaned from it in its present condition. It is not known to what pitch the pipes were tuned, or what temperament was used. The organ was perhaps tuned to meantone with a pitch considerably lower than the modern  $A_4=440\text{Hz}$ , but this conjecture is based solely on an anonymous and undated note which states: 'It was formerly

tuned in mean tune [*sic*] temperament as was done in J.S. Bach's day, but was re-tuned in the present day equal temperament by Keith MacMillan of Toronto several years ago.'<sup>14</sup>

The bellows were originally operated by a lever running in a slot on the left side of the casework at the rear. The later keyboard organ by Coates, the casework of which is preserved in the Sharon Temple, also has this feature. As the crank for rotating the barrel is at the front of the casework, playing the instrument while operating the bellows from the side slot obviously required the services of two people.

The organ was moved into David Willson's Study from the Meeting House, and during this move the bellows lever was removed and replaced with a foot pedal installed through a crude hole carved into the lower front of the casework.<sup>15</sup> The pedal survives, but none of the mechanism to which it was attached is in existence, so the actual layout of the operating system is unclear. Another of Coates's organs, which was preserved in private hands in Rodney, Ontario, and has now been donated to the Sharon Temple Museum, shows this feature as an original installation. The conversion of the barrel organ to front pedal operation was done for two reasons: firstly, space constraints in the Study made it almost impossible for a person to squeeze in beside the casework to operate the bellows and, secondly, Willson operated the instrument himself in the privacy of his own domain.<sup>16</sup> An illustration of around 1890 by Owen Staples shows the barrel organ placed against the end wall of the Study with the foot pedal in place.<sup>17</sup> There is, however, a problem in interpreting this illustration; the organ is fitted so tightly into the end of the room that it is clearly impossible to slide the barrel out from the side when changing to a new set of ten tunes. It has been said that the



framework may have been adapted at this point to allow barrels to be removed from the front, although the evidence is not clear.<sup>18</sup>

## Analysis

During this first period of its existence, the barrel organ is a functional object kept in service by the musical instrument craft tradition. The chief alteration in its state occurred when it was transferred to the Study. The side lever system for actuating the bellows was removed, and replaced with a foot pedal operated from the front. This involved drilling a hole through the casework near floor level and installing a crank on two pivots to bear on the underside of the feeder bellows. The only remains of this work extant are the loose foot pedal and the hole through which it was inserted. These changes represent a transfer from the first functioning state to the second functioning state, as defined in Section 1.1.2.

The status of historic, as defined in this work, has yet to be conferred upon the instrument. The Coates organ is in Thompson's transient category, as an object of falling value which is in the process of being used up. Assuming no change in its status, at some stage its value, both monetarily and culturally, will become zero.<sup>19</sup> The process of singularization, discussed in Section 1.2.1, where the object becomes a part of the 'symbolic inventory of a society', has yet to take place.<sup>20</sup> Such a transfer occurs, not necessarily at the owner's initiative, but under societal pressure.<sup>21</sup> Thus, while the organ was later regarded by those who preserved it from loss as an object of intrinsic historic value, its first users regarded it as a functional utensil.

### 8.1.3 Second Period: Interim

#### History

In the first decades of the 20th century the organ was acquired by the Reverend Robert William Byrne Pugh of Keswick, Ontario. No sources survive from this period concerning the history of use of the instrument. In 1953 the estate of the late Rev. Pugh donated the organ to the York Pioneer Historical Society, which at that time superintended the Sharon Temple and other historic sites in the region.<sup>22</sup>

Extensive maintenance was done in the mid-1950s, but no proper and thorough documentation of the work survives. Payzant, writing in 1980, makes reference to the work of Leonard Downey who 'converted the instrument from foot power to electricity about thirty years ago'.<sup>23</sup> This involved removal of the bellows and its actuating mechanism and the installation of an electric blower and the necessary trunking. The blower produced a higher flow than the bellows, and thus a higher pressure at the pipe feet, so two dampers were installed in the trunking to control this. The bellows and other associated parts were discarded, thus destroying all clues to the original wind pressure, although the foot pedal survives. During this period all leather and felt in the windchest was replaced. The anonymous, undated note in the files of the Sharon Temple Museum refers to a re-voicing necessary as a result of this installation. According to Barbara Ann Schau, little work was done on the barrels, aside from tapping in the occasional loose pin or bridge.<sup>24</sup> An incomplete tape recording, not using all stops, was made of some tunes in 1956. In 1963 another

recording was made, this time of all the tunes, but not using the 8' stop.<sup>25</sup> Transcriptions of the barrel tunes into musical notation were carried out by Donald F. Wright in 1967-68.<sup>26</sup>

When the organ was installed in the Sharon Temple by the York Pioneer Historical Society, an area 7" x 21" (17.5cm x 52.5cm) of the original wooden bench seating surrounding the walls was cut away so that the casework could be fitted more neatly in place. The removed wood was apparently discarded.

## **Analysis**

### *Actions*

The complete removal and discarding of the bellows, the installation of the electric blower, and the re-tuning and revoicing of the pipes, all argue a desire to bring the organ to reliable and simple working condition. All these actions are expressions of diachronic continuity; they are modernizations, constituting improvement over the original state, as defined in Section 3.3.1. This evidence places work on the mechanical parts of the organ clearly in the regimen of Currency. There is no evidence in any of these actions of attempts to recover an earlier state, or of consideration of integrity by preservation of the status quo.

In contrast to the invasive work done on the mechanism, the only work done on the barrels consisted in making their playing more reliable by resetting loose pins.<sup>27</sup> The early efforts at tape recording the organ, and the later systematic transcription of the tunes into musical

notation by Wright, argue a focus on the original musical attributes of the instrument as encoded in the barrels.<sup>28</sup>

### *Rationales*

Organ barrels are considered an extremely valuable musicological resource because they encode the music as it might have been played, not as it was written in musical notation. As Fuller remarks in his introduction to the study of mechanical instruments:

What makes automatic instruments so much more valuable than treatises is that every ornament is shown in context; every one is, in a sense, a special case and one can observe how the rules and generalizations of ornament tables are adapted to real musical situations.<sup>29</sup>

The existence on the Coates organ barrels of a wide range of tunes popular at the beginning of the 19th century provides insight into musical knowledge and practice in Upper Canada at that period. Thus, a distinctly exploratory thrust is seen in the attempt at retrieval, intact, of this music. Nevertheless, the music encoded on the barrels must be distinguished from the attitudes towards the mechanism itself, the treatment of which shows strong evidence of the values of Currency. Thus, authentic experience in the attempts to retrieve sensations of past phases in the use of the instrument is moderated by a contradictory updating and improvement of the mechanism.

### *Context*

A rising focus on the interpretation of early music resulted in increased interest in early instruments. The prevailing museum orthodoxy on the treatment of historic musical instruments is epitomised by the opening statement of the 1967 publication *Preservation and Restoration of Musical Instruments*: 'Where possible the restoration of a deteriorated

instrument is commendable.<sup>30</sup> Thus, access to museum-based literature at the time the above work was done would have underscored the didactic function of recovering the original music played upon the organ through a process of technical intervention. Nevertheless, at this period restoration was regarded among musical instrument specialists as a process of re-establishment of an earlier state, and the publication cited above makes specific recommendations upon protocols to be followed in achieving this. Also, at this period codes of conduct for the treatment of historic properties began to be formulated. The field was led by the publication of the *Weilheimer Regulativ* in 1957, which laid down guidelines for the treatment of historic organs. In the museum field *The Murray Pease Report: Code of Ethics for Conservators* had been adopted as a working document by the IIC-AG in 1963. A colloquium held in Antwerp in 1971 concerning restoration of plucked string instruments, *Restauratieproblemen van Antwerpse Klavecimbels*, further indicates the climate of opinion in Europe, although the proceedings were not widely disseminated.

### *Dissonances*

In spite of the developing context of museum conservation at the time of this treatment, and the consciousness of the need for preservation evident in the *Weilheimer Regulativ*, work was carried out which obliterated original information, such as installing the electrically-operated bellows and revoicing the pipes. In fact, the modernizing work done on the Coates organ within a museum setting indicates the isolation of these practitioners from prevailing opinions.

A clear inconsistency in approach is seen: while there was a desire for authentic experience in rediscovering the music, this was arrived at through a modernizing effort on the musical instrument. An electrically-driven wind system, which necessitated revoicing of the pipes, is used in conjunction with the original barrels. The musical result of this process cannot result in a performed rendition of the music 'as it really was'.<sup>31</sup> The intention 'to represent a known earlier state' of the musical instrument is corrupted by ignorance of the impact of modern components and tunings.<sup>32</sup> This dissonance shows a combination of values from both Currency and Restitution.

#### **8.1.4 Third Period: Renovation from 1975 to 1979**

##### **History**

Around the middle of the 1970s the growing perception of the historical importance of the Coates barrel organ began to have its consequences. It proved to be the oldest Ontario-made organ in existence, and was in essentially working condition.<sup>33</sup> This prompted much study of the instrument and eventually resulted in the decision to further renovate it.<sup>34</sup> In 1975 a grand series of concerts in the Sharon Temple was inaugurated, in which the organ was planned to feature.<sup>35</sup> In the Autumn of that year the frame, windchest, all the pipes, the blower and trunking, and the barrel mechanism were removed, leaving the free-standing casework in the Temple. The windchest and frame were transferred to a workshop in Erindale College, Toronto, while the pipes, bellows reservoir and trunking were reassembled in an organ repairer's workshop, and work on the pipes began. In order for the organ to be audible, and to

play in concert with a choir and other instruments, it was necessary to re-voice and re-tune all the pipes again. The 'cut-up' of the upper lips of the pipes was altered significantly, and the instrument tuned to the standard modern concert pitch of  $A_4=440\text{Hz}$ .<sup>36</sup> All pipes had originally had their caps attached with hand-made iron nails, many of which had to be extracted during tuning and voicing. The caps of all 133 pipes were then 'fastened with neat screws in place of Coates's crude nails'.<sup>37</sup> It was reported that 'the resulting joints are stronger than the originals' and would allow further adjustment for voicing when required.<sup>38</sup>

The windchest was opened and all leather and felt inspected. In general, the materials installed by Downey in the 1950s were still in good repair, although the mechanism needed much cleaning, adjusting and freeing-up.<sup>39</sup> During reassembly many modern manufactured wood screws were used throughout the structure, replacing the original nails, screws or wood pegs. Extensive cleaning and repositioning of the keyframe, keys and points was also done at this time. According to Geoffrey Payzant, Stewart Duncan, a Toronto organ specialist, was responsible for this work, although no documentation survives.<sup>40</sup>

At the close of this phase, in June of 1979, the organ mechanism was playable in Duncan's workshop using the original barrels. However, the barrels were not in good condition; some pins and bridges showed a tendency to come loose and the wooden gear teeth, which engaged the worm drive, were chipped and worn.<sup>41</sup>

## Analysis

### *Actions*

The planned concert use of the organ provided the stimulus for this further treatment. Gordon Angus, an Ontario enthusiast of early organs, places the onus for treatment decisions on the organizers of the concert series.<sup>42</sup> The re-voicing of the pipes, and their re-tuning to  $A_4=440\text{Hz}$ , fit solidly into the category of continuity. The motive was one of utility, maintaining the instrument in a functional state at modern pitch. Substitution of 'neat screws' for the original 'crude nails' in order to make the joints 'stronger than the originals' was clearly made with a view to improvement.<sup>43</sup> That this process 'would allow further adjustment for voicing when required' further amplifies the utilitarian nature of this work.<sup>44</sup> The absence of treatment documentation is characteristic of Currency.

### *Rationales*

There is no evidence of subscription to subjective values during this period. The strong thrust towards continuity shows that the instrument is securely placed in the regimen of Currency, but there is no evidence that this is underscored by any contemplative aspirations. In the absence of these rationales, Currency as a regimen becomes indistinguishable from the base craft tradition of musical instrument maintenance. At this period, the historical status of the instrument is entirely subsumed by its function as a working musical instrument.



### *Context*

During the 1970s, when the barrel organ was being prepared for concert performance, there is evidence of a divergence of opinion on the correct disposition of historic musical instruments. On one hand 'the ever-increasing necessity of restoring old instruments' is advocated by the delegates to the Cremona 'Day of Studies',<sup>45</sup> which builds upon the ground laid by the ICOM publication on restoration.<sup>46</sup> On the other hand, the new conservation awareness evident in the publication 'Restoration, Conservation, Repair and Maintenance' promotes the opposite.<sup>47</sup> Restoration as a means of preservation is opposed to conservation as defined by non-intervention. From discussions earlier in this work, it can be seen how loosely the term 'restoration' is used in the literature at this time. At this period of treatment of the Coates organ, opposing viewpoints of equal persuasiveness are represented in the literature, but the tendency towards caution in interventive strategies is gaining ground.

### *Dissonances*

Although this period of treatment coincides with a major turning point in attitudes towards the treatment of cultural property, no dissonance is in evidence. Prevailing opinion within the museum field was turning against interventive treatment, and in both Restitution and Preservation the historical qualities of the object are the focus. In opposition to these trends, the actions upon the Coates barrel organ appear to have been taken with no thought for either recovery of historic state or preservation. There is no evidence that the prevailing social and intellectual context in the disposition of historic instruments was considered.

Dissonances in the approach are also absent. The thrust of treatment was totally located in Currency: contrasting the term 'neat' to describe the screws with 'crude' for the nails indicates a value judgement -- that a better or improved version of the original has been supplied. The idea of restoration, *as a return to a previous state*, does not feature in the actions taken on the organ at this time, although it must be understood that the craftsmen who performed the work may well have perceived their work as 'restoration' in the sense that they were restoring the organ to working condition. In the present context this work is regarded as maintenance.

#### **8.1.5 Fourth Period: Renovation ending in 1984**

##### **History**

The condition of the original barrels of the organ was such that it was considered further damage to them and to the mechanism could result if they were played. The decision was made to have a new barrel machined and to pin it with a selection of five tunes. Once the barrel was made and had been tested in the organ, the mechanism was returned to the Sharon Temple and installed in the casework, with one rank of pipes, so that pinning could proceed *in situ*.<sup>48</sup> It was decided to pin only five tunes so that a much wider and more robust wire could be used for the pins and bridges. Pinning was begun with 'University', the simplest of the tunes on Coates's barrels. This was regarded as an experiment, as the tune has the fewest notes and no dense chords or rapid passages. A one-bar interlude on Coates's version of this tune was omitted:

For more straightforward operation this gap would be needed, otherwise the operator would not be able to stop the barrel neatly between verses, and [...] we were striving for simplicity in operation.<sup>49</sup>

Apart from this omission the tune almost exactly copied the original, as far as the condition of the original barrel would allow. However, as pinning of further tunes progressed, 'Egypt' on the original barrel was found to have missing sections, so on the new barrel 'some conjectural accompaniment [was composed] in order to maintain the style and texture'. This was done 'with particular delight and the conviction that if Coates did not do it my way, he should have'.<sup>50</sup> 'University' was first heard on the new barrel in 1979. Further tunes were pinned until, in 1984, the barrel contained a full five.

The craftsman notes that, because many of the pins on the original barrel were loose or too low, a note would 'wheeze and squeak or not sound at all. Some people think this effect is quaint and attractive, but it is not the effect the builder sought in 1820'.<sup>51</sup> When the new barrel was installed, he reports that 'once I heard this beautiful old instrument in full voice, resonating in the Temple [...] it was a revelation to me. I still marvel at the sound'.<sup>52</sup>

As part of further renovations to both the Coates organs (keyboard and barrel) there was a suggestion to strip the caseworks and to refinish them. The original finish consisted of coloured varnish grained to appear like mahogany.<sup>53</sup> The Canadian Conservation Institute was requested to comment on the proposal to strip and refinish, and advised that such original finishes were rare, especially on wooden objects of this vintage in Ontario, and that the casework should be left intact and consolidated wherever possible.<sup>54</sup>

One outstanding problem with the barrel organ had been noticed: there was a tendency for 'running' among some of the pipes on the right side of the windchest.<sup>55</sup> The symptom of 'running' appears when pipes adjacent to the one whose windway is opened also speak. For example, on the Coates organ, when pipes a major third apart were sounded together in a chord, the pipe between would also speak. The faults that cause this 'simultaneous sounding of another pipe with the one which is intended to sound' are detailed by Seidel in his classic 19th century handbook on organs.<sup>56</sup> He describes the symptom as indicating leakage between channels in the windway due to either faulty caulking between them, loose screws holding the top and bottom of the windchest together, warped components, or excessive wind pressure.<sup>57</sup> Traditionally, this problem is forestalled by the organ-maker by cutting chequered v-shaped channels in the boards above and below the slider, which have the effect of channelling away any leakage. Audsley illustrates these in his 19th century English compendium on the organ.<sup>58</sup> No such channels had ever been cut into the boards of the Coates organ.

It was thought that the running on the Coates organ could be cured by providing 'safety valves' at some points in the windchest close to the affected pipes. In the absence of the traditional channels in the boards, which fulfil this role, this can be accomplished by drilling holes to the outside air, graduated according to the supplied pressure, the size and resistance of the pipe, and other features which control pressure at the pipe's foot. Usually a fairly small hole is drilled, and opened out as tests reveal the improvements in attack and decay of the note. This technique is mentioned by Andreas Werckmeister in his *Orgel-Probe* of 1698, where he describes it as 'a deplorable practice'.<sup>59</sup> Seidel, writing upon the organ in the mid-

19th century, refers to such relief holes as ‘a sort of artifice to hide some fault’.<sup>60</sup> In his practical guide of the 1920s to organists in isolated parishes, John Matthews says ‘there is a rough and ready method of curing runnings without taking down the soundboard -- the objectionable practice known as “bleeding”’.<sup>61</sup> Clearly, among orthodox organ builders and servicers, the technique of bleeding was not to be countenanced.

As the windchest of the Coates organ had recently been dismantled and serviced, it was assumed that the running was due to poor original design, and steps were taken to make corrections or improvements. Thirteen  $\frac{1}{4}$ " (6.25mm) holes were drilled in the front facia board of the windchest to correspond with the troubled windways on the right side of the windchest. This cured the problem very effectively and there proved still to be ample pressure from the electric blower so that, even though wastage through bleeding occurred through these holes, it was not sufficient to compromise operation.

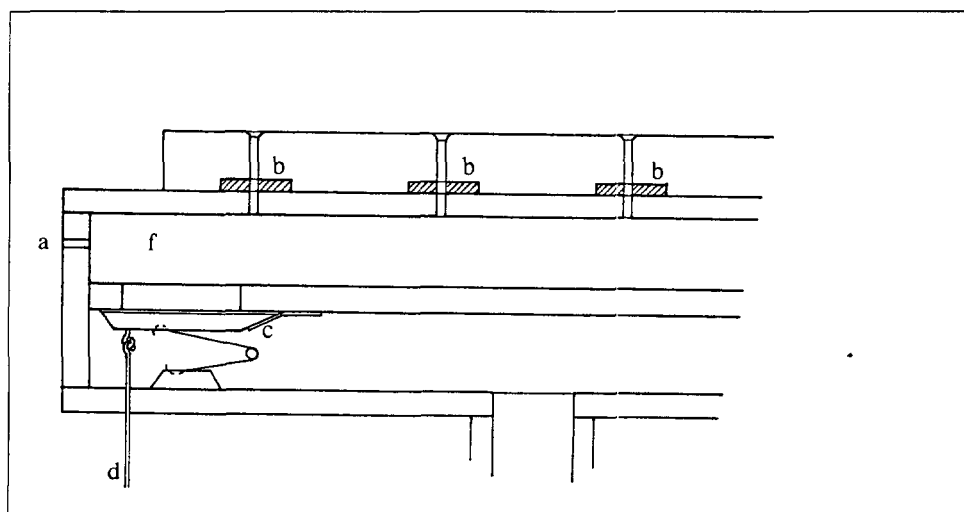


Figure 4. Cross section of the windchest showing the location of the relief holes (a), the sliders (b), the pallets (c), the actuating wires (d), and the windway (f).

Apparently in an effort to protect his source of advice on this unorthodox measure, the craftsman states only that it was done 'on the basis of the best available advice'.<sup>62</sup> Remarking on the subject of the pressure relief holes, he noted that:

I have heard it said that there was dismay over the drilling of those holes because they are quite visible. From the point of view of the sound of the organ, and of its use, the holes were long overdue and are perhaps the most effective single improvement in the current program of renovation of the instrument.<sup>63</sup>

Another problem that presented itself was that on occasions, especially during the playing of clusters of notes, the tracker bar would be forced upwards as the keys impinged upon the bridges and pins of the new barrel.<sup>64</sup> Some keys on the old barrel had even been knocked out during playing and had been set back in place with epoxy resin. The sharp angle of attack of the keys onto the barrel was at the root of this problem, but no corrective action was taken except to hold the tracker bar down by hand when playing.<sup>65</sup> The editor of the *Journal of the Musical Box Society* stated that:

We have never seen one with stickers dropping directly onto the pins, and such bizarre construction makes one wonder if something has been removed or the mechanism altered over the years.<sup>66</sup>

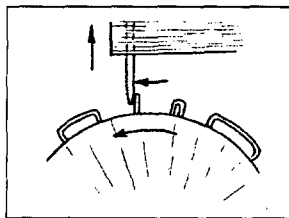


Figure 5. The way in which the keys impinged upon the bridges and pins.

The philosophical approach to treatment of the barrel organ during this phase of its existence is encapsulated in the following quotation:

On this job maintenance and repair are indistinguishable. And it would be wrong to refer to the project as a 'restoration', if by that word is meant returning to its original condition. This cannot be done, for two reasons. The first [is the] loss of the original wind-generating system. The second is the kind of service that is now expected of the organ. It plays as often in a week during the summer season as it would have in a year in its heyday in the Meeting House, hence its operation must be made simple and reliable, as it was not originally.<sup>67</sup>

And further:

On a device as old and as sensitive as the Coates barrel organ the distinction between maintenance and repair is not a clear one, so the work will continue as long as the instrument is in regular service.<sup>68</sup>

By 1984 five tunes were pinned on the new barrel -- 'University', 'St. Anne's', 'China', 'Egypt' and 'Wells' -- and the pipes all spoke accurately. The instrument was demonstrated several times daily to museum visitors throughout the summers that followed. Although reservations were expressed at the continuing use of the organ, it was not until the end of 1991 that use was curtailed pending a review of the organ's condition and treatment.<sup>69</sup>

## **Analysis**

### *Actions*

Values of the regimen of Currency predominate in this fourth period of the organ's treatment. Action to ensure continuity is seen in the many references to improvements made to the organ throughout this period, particularly the measures taken to eliminate 'running' among the pipes on the right side of the windchest. This was regarded as 'perhaps the most effective single improvement of recent decades'.<sup>70</sup> Use of the word 'improvement' indicates the value of continuity. Also, the proposal to strip the original varnish of the organ casework, and to refinish it, is indicative of values which are firmly within the Currency regimen.

Throughout the renovation in this fourth phase, simplicity of operation is the chief intention. The craftsman speaks of ensuring ‘more straightforward operation’<sup>71</sup>, and making the organ ‘simple and reliable, as it was not originally’.<sup>72</sup> This is justified by the increased level of duty the instrument is now called upon to perform. The indistinguishability of maintenance and repair in the restorer’s view, is further indication of the perceived necessity for gradual relegation and replacement of parts that have ceased to function efficiently; i.e. remaking of the barrel. Such a transformation of the instrument under continual maintenance is a key indicator of continuity.

After removal of the bellows and associated mechanism, and re-voicing and tuning of the pipes, the barrels remained the sole purveyors of the instrument’s original musical function. As work began on the pinning of a replacement barrel, improvements were incorporated there too. During pinning of ‘University’ a one-bar phrase was omitted,<sup>73</sup> and a missing section from ‘Egypt’ was replaced with ‘some conjectural accompaniment’.<sup>74</sup> These reworkings are diametrically opposed to the values held in the regimen of Restitution, where the thrust is towards recapturing an earlier disposition. To paraphrase Morgan, Coates’s organ ‘was altered in order to protect the currency of his music and to preserve his place within the tradition’.<sup>75</sup> The organ was not easily playable without these changes, which were felt necessary to continue projection of Coates and his music into the future.

### *Rationales*

Subjective elements are clearly evident in the transformation the instrument has undergone, coupled with the assertion that it is still ‘the Coates barrel organ’.<sup>76</sup> The pathetic fallacy



asserts itself in the belief that even through discarding the wind generating system and replacing it with electricity, through re-voicing and re-tuning the pipes, through reworking the barrels upon which the music itself is encoded, and through all the other efforts towards improvement and simplicity, Richard Coates the organ-maker is still in evidence. A further, more direct, emotional connection with Richard Coates is suggested by the ‘conviction that if Coates did not [pin the tunes] my way, he should have’, and the delight with which this work was apprehended.<sup>77</sup> Also, the report that ‘once I heard this beautiful old instrument in full voice, resonating in the Temple [...] it was a revelation to me. I still marvel at the sound’ implies that the sound produced is what the builder might have heard.<sup>78</sup>

### *Context*

This phase of work on the Coates barrel organ was in progress during the period when the international journal *Early Music* had published two seminal articles on the philosophy of intervention upon historic musical instruments: ‘Restoration, conservation, repair and maintenance’ in 1979, and ‘Does restoration destroy evidence?’ in 1980.<sup>79</sup> Both these publications advance a note of caution in approaches to the restoration of historic instruments. In the local context, *The Care of Musical Instruments in Canadian Collections* had been published in 1977, advocating a minimally interventive conservation approach.<sup>80</sup>

### *Dissonances*

The phrase ‘I have heard it said that there was dismay over the drilling of those holes’ is the first documented indication of dissonance.<sup>81</sup> The request to the CCI for advice on the advisability of stripping and refinishing the casework is further evidence of the incursion of

other regimens.<sup>82</sup> The modernizing approach to the instrument is consistent with the regimen of Currency, which is characteristically isolated from the context of museum-based treatment approaches. However, dissonance arises because the organ is the property of a museum, and yet is still treated as an object to be maintained through continuity.

Dissonance is clear in the implication that ‘the effect the builder sought in 1820’ has been achieved through the installation of the new barrel, coupled with an electrically driven wind system feeding pipes tuned at modern pitch and in a modern temperament.<sup>83</sup>

#### **8.1.6 Synopsis of the Four Periods**

In the first identifiable treatment period the barrel organ is not yet an historic instrument by definition. It is transient object of falling value, and has yet to be singularized, and thus identified by society as an object of symbolic value.

In the second period, modernization of the organ’s mechanism by substitution of the pedal operated bellows with an electric blower, tuning and voicing the pipes, and replacement and upgrading of other parts, indicate the values of continuity. However, the desire to record the music on the barrels by playing the organ indicates a distinct interest in the historic aspects of the instrument. A higher value is placed upon the authenticity of the musical data encoded on the barrels, than upon that of the mechanism itself.

The third period, the renovation of 1975-79, again shows the predominant value of continuity through maintenance. All actions taken upon the organ are aimed towards its function as a musical instrument. It is improved and made easier to play, and its tuning is modernized for concert performance. There is no evidence of subjective rationales.

In the fourth period of treatment, improvements on the organ to ensure easier playing continued into the renovation ending in 1984, indicating continuing adherence to the values of Currency. Similarly, changes made to the musical data during pinning of the barrels also indicate an effort at continuity. References to the maker of the instrument evoke a subjective rationale. In this final phase, conflicts and inconsistencies are encountered.

## **8.2 STEINWAY PIANO IN RIDEAU HALL, OTTAWA**

### **8.2.1 Introduction**

Canadian pianist Glenn Herbert Gould (1932-1982) possessed several pianos which he used for concerts, recordings and practice. Five pianos he owned during his concert and recording career are extant: a Yamaha grand in Roy Thompson Hall, Toronto; a Steinway grand in the National Library of Canada in Ottawa (see Section 9.1); a Steinway grand in Central United Church, Edmonton, Alberta; a Chickering of 1895 in Toronto; and the instrument under study here, a Steinway grand in Rideau Hall, the Governor General of Canada's residence in Ottawa.<sup>84</sup>



Figure 6. The Steinway piano in Rideau Hall, Ottawa.

The instrument described here is a Steinway 6' 11" grand piano completed on 24 October 1934 and given the serial number B274981.<sup>85</sup> It was initially owned by Steinway and Sons and leased to various artists as part of the firm's Concerts and Audit collection. Glenn Gould purchased the instrument from Steinway on 9 April 1969.<sup>86</sup> On Gould's death in 1982 the executors of his estate offered the instrument for sale, and there was concern in the Canadian cultural community that it might either pass into private hands or leave the country.<sup>87</sup>

The Director General of the National Arts Centre in Ottawa was initially enthusiastic about purchasing the instrument, but finding the transaction difficult to justify, passed on the information to the administrators of Rideau Hall (also known as Government House), the residence of the Governor General of Canada.<sup>88</sup> An agreement to purchase was struck in March 1983 and plans were made to return the piano to performance level.<sup>89</sup> After consultation with the Toronto piano tuner who worked closely with Gould, the instrument was placed in the hands of Lauzon Music, the representative for Steinway in Ottawa.<sup>90</sup>

The instrument was completely refurbished and returned to Rideau Hall. The inaugural concert was performed at Rideau Hall on 30 November 1983 by Vancouver pianist Jon Kimura Parker. Among the guests on this occasion were the parents of Glenn Gould.<sup>91</sup> The piano is seen and heard regularly by many Canadian and foreign visitors who pass through Government House each year.

Three distinct periods in the history of this Steinway piano can be identified from the above introduction:

- Acquisition and use by Glenn Gould
- Purchase by Rideau Hall in 1983
- Restoration and continuing use

The history of the instrument is documented in detail below, and activity within these periods is analysed.

### 8.2.2 First Period: Acquisition and Use by Glenn Gould

#### History

Little can be said of the original users of the piano from 1934 until Glenn Gould's acquisition, as the only documentation pre-dating his ownership is held by Steinway and Sons and is considered confidential.<sup>92</sup> Although its use as a loan instrument in Steinway's Concerts and Audit collection indicates that it had no special identifiable attributes, during his frequent visits to New York Gould had come to appreciate its qualities, as he had done with another Steinway piano, number CD 318 of Eaton's Concert and Artist Fleet (see Section 9.1).<sup>93</sup>

Glenn Gould purchased the instrument from Steinway and Sons on 9 April 1969 and had it delivered to his home address in Toronto.<sup>94</sup> This instrument is referred to as Glenn Gould's 'working piano'; the phrase originates with the executors of the estate, is adopted by the National Arts Centre in Ottawa,<sup>95</sup> and is used by various officials in the cultural sectors of the Department of Public Works and the National Capital Commission, the body responsible for maintenance of Rideau Hall.<sup>96</sup> Yet nowhere in the existing documentation is the term 'working piano' defined. Kenneth Lauzon, an Ottawa piano restorer who later worked on the piano, stated that, because this was the private instrument that Glenn Gould kept in his apartment, it was his opinion was that the term 'working piano' became synonymous with 'practice piano'.<sup>97</sup>



comparatively neglected by commentators and analysts. Nevertheless, while in Gould's possession this piano was maintained by Verne Edquist, a Toronto piano tuner acquainted with the special disposition Gould required in his instruments, and was kept in that mechanical state.<sup>101</sup>

## **Analysis**

At the stage when it was used regularly by Glenn Gould, there are no indications that the Steinway piano was regarded as an historic instrument. The piano was in continuous daily use, was regularly maintained, and was therefore likely regarded by Gould and his tuner as a utensil. As with the previous example, the Coates barrel organ, the piano has yet to become a part of the 'symbolic inventory of a society'.<sup>102</sup> The association of the instrument with Glenn Gould, whereby it became culturally marked, is retrospective, in that only after his relinquishing of it did it become a singularized, durable object of cultural value.

### **8.2.3 Second Period: Purchase for Rideau Hall in 1983**

## **History**

After Glenn Gould's death in 1982 the executors of his estate offered the Steinway for sale. It was initially offered to the National Arts Centre in Ottawa, but Rideau Hall, the residence of the Governor General of Canada was then considered.<sup>103</sup> During negotiations for the purchase of the instrument from the estate, it was reported that the Governor General's residence



already had two Steinway baby grand pianos ‘personally selected for us by Horowitz’ so that ‘before agreeing to take the Gould piano [...] it should be checked for size, suitability, etc.’.<sup>104</sup>

According to the executors, the piano had to be maintained in working condition, consideration being given that it should be:

In the care of an individual or an organization where it would be used by professional musicians (a piano will deteriorate unless it is used) and, if possible, be available for viewing [...] by members of the public.<sup>105</sup>

The intention was that it be ‘preserved, protected and used to the greatest advantage’.<sup>106</sup> In recognizing the cultural and aesthetic aspects of the proposed acquisition, the Deputy Minister for Public Works stated that Government House (Rideau Hall) would be the best site:

Such a historic piece would be seen by many visitors each year and [...] it would receive the regular use necessary to prevent its deterioration [...] large numbers of visitors, including school children and senior citizens, are shown through the House each year in organized tours and with an appropriately worded plaque, the piano’s origins and significance could be explained by the tour guides.<sup>107</sup>

Unlike Steinway CD 318, which was Gould’s more publicised instrument, there was no stipulation from the executors that this piano remain in the state in which Gould had used it. Acquisition of the piano by Rideau Hall was made contingent upon its being reconditioned, therefore to the estimated purchase price of between \$6,000 and \$7,500 was added \$2,000 to \$4,500 to cover treatment. Complete rebuilding and refinishing had been recommended by Verne Edquist of Toronto.<sup>108</sup>

## Analysis

### *Actions*

Values associated with continuity appear in the suggestion that acquisition of the piano for Rideau Hall is based upon its utility as a musical instrument. An assumption throughout the correspondence is that the instrument would be used on a regular basis by professional musicians, and maintained in working state.<sup>109</sup> The extent of thinking along the lines of utility is seen in the consideration of the instrument's dimensions as a guide to suitability.<sup>110</sup> Thus, although the cultural and historic associations of the Steinway piano with Glenn Gould were known and appreciated, its purchase for Rideau Hall was placed in a context which emphasises utility.

### *Rationales*

The association of Glenn Gould with the Steinway piano is the factor that initiated its singularization, and caused it to become a desirable acquisition. Plans to perpetuate this historical association included a tangible signifier in the form of a plaque to be attached to the instrument.<sup>111</sup> Subjective elements are suggested in the statement that the other Steinway pianos at Rideau Hall were 'personally selected for us by Horowitz',<sup>112</sup> as though to imbue them with unique characteristics of a personal nature. This is, however, the assumption of one individual, and does not necessarily indicate subscription to this philosophy by others concerned with the disposition of the Gould piano. The statements that 'a piano will deteriorate unless it is used'<sup>113</sup> are more apposite, signifying the subjective values associated with the maintenance of the health of instruments through function.

### *Context*

Glenn Gould's influence upon the pianistic interpretation of Bach's keyboard works is considered seminal: 'He redefined what it means to play Bach on the piano.'<sup>114</sup> It has been argued that his creative aesthetic 'implies a rejection of "authenticity" and thus challenges many of the premises and orthodoxies of the historical-performance movement'.<sup>115</sup> In the sphere of influence in which he made his music, where the interpretation of earlier music on modern instruments is considered the norm, the values of Currency find a comfortable fit. 'His insistence that the performer's role is properly creative, rather than recreative',<sup>116</sup> is indicative of the process of continuity, where there exists, in Lowenthal's phrase, a 'living past bound up with the present'.<sup>117</sup> In this context, the attitudes towards the Steinway piano, representing a constantly renewable and functional resource, are unarticulated reflections of this prevailing orthodoxy.

### *Dissonances*

There is no evidence at this period of the instrument's existence of influences from the regimens of Restitution or Preservation which might indicate cause for conflict. The phrase 'preserved, protected and used to the greatest advantage', introduces an element of inconsistency, but only if preservation and protection are taken to refer to the traces of Glenn Gould's ownership.<sup>118</sup> In this context, however, use of the piano is not inconsistent with its 'preservation' in the Residence of the Governor General.

### 8.2.4 Third Period: Restoration and Continuing Use

#### History

Prior to purchase the piano was examined in Toronto by the workshop foreman of Lauzon Music of Ottawa in March 1983 in order to assess the work that needed to be done.<sup>119</sup> On examining the instrument in his Ottawa workshop, Kenneth Lauzon's findings were reported as follows:

Was Glenn Gould an aggressive pianist? After examining the battered state of the late musician's Steinway, Ottawa restorer Kenneth Lauzon thinks so. Lauzon was hired by the federal government last week to restore the 50-year-old grand, which it purchased from Gould's estate for \$12,500. The piano will eventually be installed in Rideau Hall, the residence of the governors general. 'In 22 years of restoration I have never seen anything like it', said Lauzon after surveying the damage. Two layers of veneer are scraped from the name board. The strings are worn out. The harp that holds them needs rebronzing, and Lauzon plans to strip and repaint the entire piano. 'It looks as if the beavers got at it', said Lauzon.<sup>120</sup>

The Steinway was entirely dismantled, all mechanical parts were serviced or replaced, the metal frame was rebronzed, and the case was stripped to the bare wood, repaired and refinished with 'six or seven coats' of black lacquer. The instrument was restrung and tuned, hammers and dampers were refelted, and the action was adjusted.<sup>121</sup> None of this work was documented either in writing or graphically; the instrument was 'treated like any other piano' in need of refurbishment.<sup>122</sup> The only extant documentation of this treatment is a series of 4" x 5" format colour photographs mounted on a panel.<sup>123</sup> On return to Rideau Hall it was intended that a metal plaque be attached to the instrument above the keyboard. This was not done; instead, a portrait of Gould at the keyboard was hung near the piano with the following inscription:

As a mark of respect for the musicianship of the late Glenn Gould, the Government of Canada, at the request of Their Excellencies Mr. & Mrs. Edward Schreyer, acquired and has restored Mr. Gould's working piano for display and use in the ballroom of Rideau Hall.

In commenting upon the original proposal for a commemorative plaque attached to the instrument, an official of the Museum of Man in Ottawa was quoted as saying that 'it's ironical to remove all evidence of Glenn Gould and then put a plaque on it saying it is his'.<sup>124</sup> In answering this criticism, the Public Works Project Manager stated that 'it's not being bought as a museum piece. It was offered to us on the condition it be restored as a musical instrument'.<sup>125</sup> However, in the opinion of the chief executor of the Gould estate, the treatment was the purchaser's idea, although he did support it.<sup>126</sup> The Governor General's Cultural Attaché remarked that 'it hasn't occurred to anyone' to leave the piano in the state in which Gould used it.<sup>127</sup> Glenn Gould biographer Geoffrey Payzant wrote that:

It is being rebuilt at public expense so that all traces of the characteristics for which he loved it will be carefully removed; it will occupy a place of honour in the official residence of the Governor General as a memorial to its former owner. A government official has announced that it will be in such good condition that Gould himself would not have been ashamed to play it in public. The many levels of irony and absurdity in these projects would have delighted Glenn Gould.<sup>128</sup>

Even though Payzant is confusing this instrument with CD 318, which is in the possession of the National Library of Canada, his sentiments concerning the removal of all traces of Gould's use remain valid. Two officials of The Heritage Canada Foundation reacted publicly to the decision taken to restore the piano, and to the suitability of the personnel employed:

Canada has some of the world's finest furniture and musical instrument conservators in its employ [...] It seems only appropriate that the 'how' and 'how much' of the restoration be entrusted to their competent judgement; not to a furniture/piano refinisher -- regardless of how skilled.<sup>129</sup>

In criticizing the removal of all traces of Glenn Gould's ownership, the Heritage Canada officials commented:

We, as Canadians, must overcome this outdated notion that our history, our great achievements and our heroes must be without flaw. For it is the patina that recalls these events and men. From it we come to understand what greatness is.

This piano's keyboard reflects the thousands of hours of practice that Mr. Gould struggled through to reach his perfection. As such these scratches and flaws reflect perfection much more than seven perfect coats of lacquer ever will.<sup>130</sup>

The restored Steinway had its inaugural performance by Jon Kimura Parker on November 30 1983; Glenn Gould's parents were among the guests.<sup>131</sup> The piano continues to be used at Rideau Hall on a regular basis and is periodically tuned and maintained by Lauzon Music.

## **Analysis**

### *Actions*

Values associated with Currency are signified by both the recognition of the tangible evidence of Glenn Gould's ownership, and by its subsequent obliteration. Treating the instrument 'like any other piano'<sup>132</sup> in need of refurbishment demonstrates the application of the craft tradition in assuring continuity through maintenance (keeping in mind the very broad interpretation of maintenance in this context). The processes of removing the marks of usage on the keyboard fascia, replacing working parts such as hammers and dampers, re-bronzing the harp, and stripping and refinishing, all indicate continuity.

There is evidence that the previous state and its significance to Glenn Gould are not considered. Examination of the marks of use on the keyboard fascia, which the critics of the treatment had referred to as 'patina'<sup>133</sup>, is conversely described by the craftsman as 'surveying the damage'.<sup>134</sup> The contrast of the words patina and damage evokes the polarity between historical context and continuity. Had the intention been to preserve these features,

action could then be classified as a search for what Lowenthal refers to as the 'exotically different or obsolete'.<sup>135</sup>

The statement that the instrument was 'not being bought as a museum piece' but was offered 'on the condition it be restored as a musical instrument', indicates the popularly held polarity between Currency and Preservation.<sup>136</sup> The word 'restored' is used in such a way that the distinction between maintenance and a return to a previous state are conflated. The underlying assumption is one of opposition -- that a museum piece cannot operate as a musical instrument. The prime focus is in ensuring the continued function of the instrument in a familiar setting.

### *Rationales*

Subjective values are evident in the expendable nature of the characteristics specific to Glenn Gould's ownership, as embodied in both the fabric of the instrument, and in the changes made and caused by him to it. If it is considered possible to refurbish the instrument entirely, both visually and mechanically, then the continuing cultural presence of Gould must have an existence independent of the instrument's materials of fabrication. Elements of the pathetic fallacy are therefore seen in the instrument being used as a signifier of Glenn Gould by its presence alone, and not by any unique physical feature of it. This is in marked contrast to the pragmatic viewpoint expressed by one of the critics in commenting upon the irony of removing 'all evidence of Glenn Gould and then put[ting] a plaque on it saying it is his'.<sup>137</sup>

### *Context*

As mentioned in Section 8.2.4, attitudes towards the Steinway piano in this period represent the prevailing orthodoxy of continuity. The remark that ‘it hasn’t occurred to anyone’ to leave the piano in the state in which Gould used it is indicative of the depth of commitment to continuity, but equally of the absence of exposure to other rationales.<sup>138</sup>

The absence of documentary material, enlisted either in support of the decision-making process or of the actual treatment, is indicative of the non-textual nature of Currency. The refurbishment itself was undertaken in the same manner as for the routine treatment of a non-culturally marked piano, and the only record of treatment was a series of photographs. This lack of congruence with parallel methods of working in the cultural sector is further evidence of the insular nature of Currency. The statement that ‘it’s not being bought as a museum piece’ signifies this attitude.<sup>139</sup>

### *Dissonances*

During and after the restoration process conflicting views on the nature and extent of the treatment surfaced. The competence of the craftsman’s judgement is questioned in asking why decisions on the extent of ‘restoration’ should be entrusted to ‘a furniture/piano refinisher -- regardless of how skilled’.<sup>140</sup> And the removal of all traces of Gould’s use is decried; the patina ‘recalls these events and men. From it we come to understand what greatness is’.<sup>141</sup> The critics further equate the physical imperfection evident in the scratches and flaws indirectly with Gould’s aesthetic musical perfection.<sup>142</sup> (The polysemic nature of these traces of use is discussed in Chapter 11.)



There is no evidence of dissonance in the approach to the actual treatment. It, and the rationale behind it, are firmly founded in the regimen of Currency.

### **8.2.5 Synopsis of the Three Periods**

In the first identifiable period, acquisition and use by Glenn Gould, the Steinway piano is not yet an historic instrument by definition. It is a transient object of falling value, and has yet to be identified by society as an object of symbolic value.

Purchase by the Canadian government initiates a transitional period, when the instrument (now singularized) has ceased to be used on a regular basis, but before intervention is made on it. The piano possesses all the features of its previous owner's unique adjustments, and the marks of wear and use on its surface. As no action has been taken upon it, it is in a holding state of passive preservation -- preservation by default. The aspiration that the piano will be 'preserved, protected and used to the greatest advantage' summarizes the equivocal nature of thinking at this stage.<sup>143</sup>

The third period of treatment, the refurbishment of the Steinway piano and its continued use in concert, places actions upon it securely in the regimen of Currency. Evidence is predominantly found in the actions taken to ensure continuity, although a rationale based in the subjective is also encountered. The lack of documentation is a key feature of this regimen.

## 8.3 AMATI QUARTET

### 8.3.1 Introduction

These four bowed string instruments were brought together as a quartet in the 1950s by Stephen Kolbinson, a wheat farmer of Kindersley, Saskatchewan.<sup>144</sup> The 1637 violin was acquired from David McCallum, a violinist of the Royal Philharmonic Orchestra in 1955. Kolbinson purchased the 1627 violin from Australian violinist Daisy Kennedy in 1957, having previously enquired after its availability in 1954. The violoncello was purchased from Hills of London in 1957, and the private collection of Walter Simmenauer in Paris sold the viola to Kolbinson in 1958.<sup>145</sup>

In order to ensure that the instruments were played upon on a regular basis, it was Kolbinson's wish that the University of Saskatchewan purchase the instruments and form a quartet-in-residence.<sup>146</sup> Murray Adaskin of the University's Department of Music undertook to persuade the Senate of the University late in 1958 to pursue the purchase.<sup>147</sup> Negotiations with the newly-formed Orford Quartet to be the quartet-in-residence appeared promising at first, but eventually came to nothing. No permanent players emerged until 1969, by which time the Department of Music was employing enough teachers to form a quartet.<sup>148</sup> On Adaskin's retirement for the University in 1973, the four Amati instruments were placed in storage in the Department of Music. During their period of storage they were examined periodically.

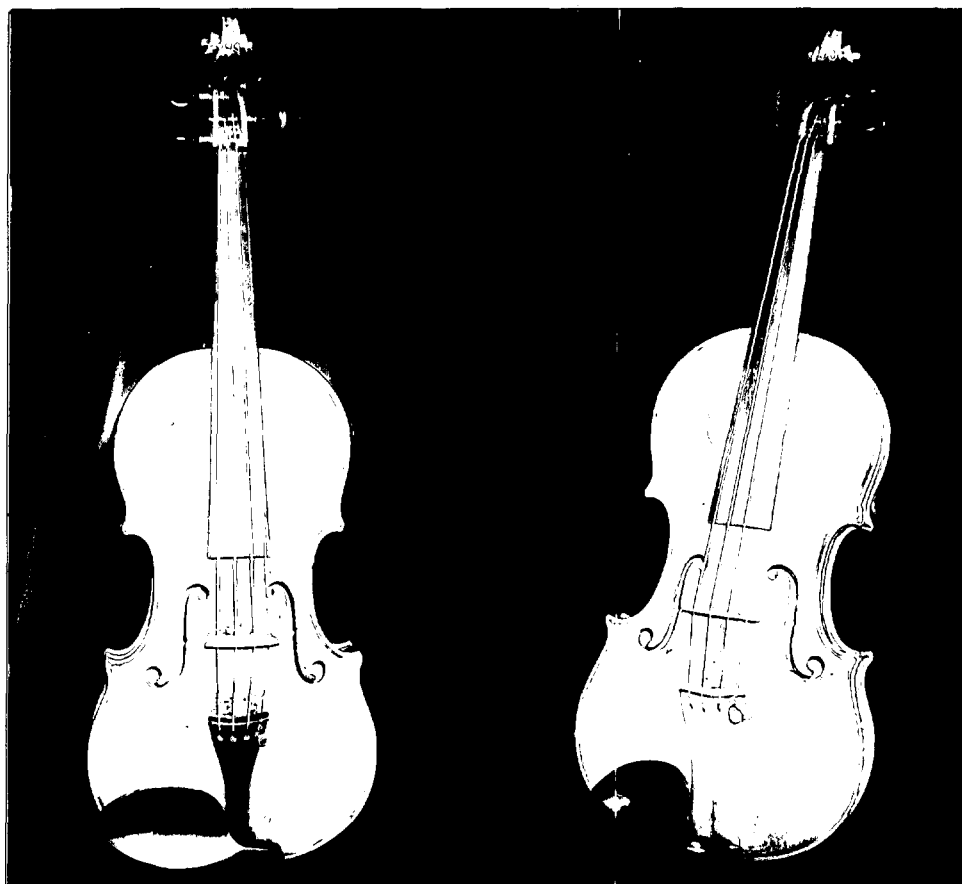


Figure 8. The 1637 Nicolo Amati violin (left) and the 1627 Antonius and Hieronymus Amati violin (right).

In 1992 a request was made to the University authorities by the Lafayette Quartet for loan of the instruments, and an agreement was reached between the University of Saskatchewan and the University of Victoria, British Columbia, where the Lafayette Quartet was in residence.<sup>149</sup> Review of the loan agreement in 1996 occasioned a reassessment of the role of the University in its custodianship, resulting in consultations with a wide range of specialists in the care and preservation of historic musical instruments.

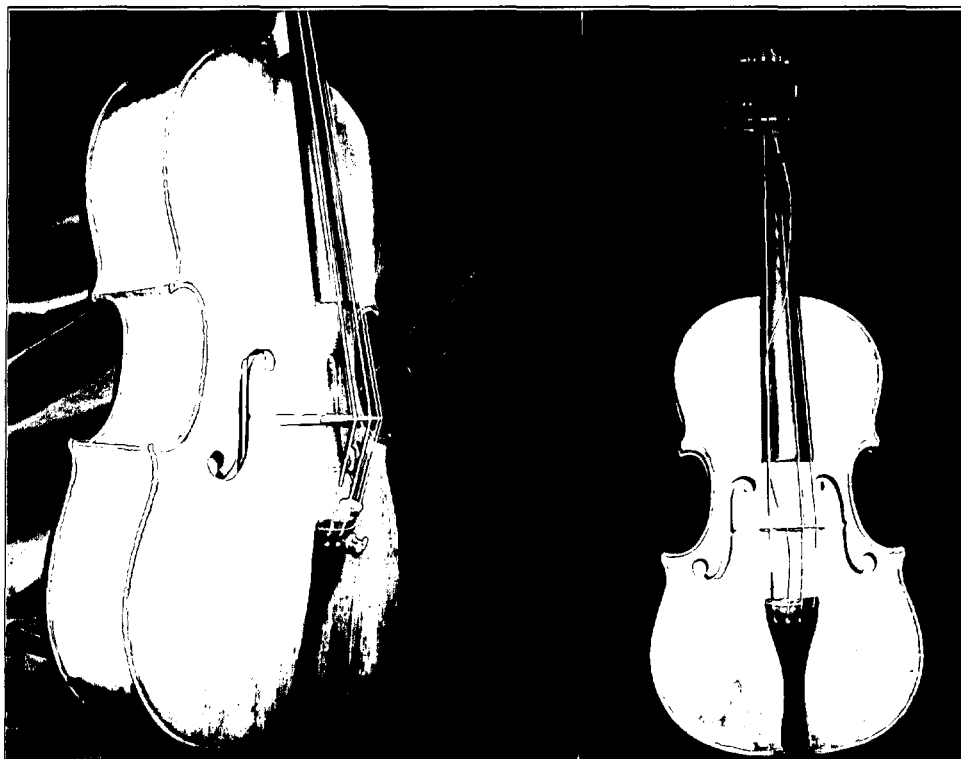


Figure 9. The 1607 Antonius and Hieronymus Amati viola (right) and the 1690 Hieronymus Amati violoncello (left).

From the above material, three distinctly documented periods in the history of the Amati Quartet can be identified:

- The quartet-in-residence
- Fallow period from 1973 until 1992
- The quartet on loan

These periods are documented in detail in the following sections, and activity within them is analysed.

### 8.3.2 First Period: The Quartet-in-Residence

#### History

During the brief period in 1958 that Stephen Kolbinson owned the four Amati instruments, he consulted with the New York specialists Emil Hermann, Jacques Français, and Rembert Wurlitzer regarding valuation and authenticity of the two violins and the viola.<sup>150</sup> Only one of the instruments, the viola, was considered in need of treatment on this occasion: 'I left [it] with Sacconi [Simone Sacconi, employed by the Wurlitzer firm] to have some slight repairs done so that it will be in the best of condition'.<sup>151</sup> The firm of Wurlitzer possesses no documentation of this treatment.<sup>152</sup>

In order to ensure the instruments would continue to be played, Kolbinson entered into negotiations with the University of Saskatchewan, who eventually purchased the quartet.<sup>153</sup> Meanwhile, Murray Adaskin of the University's Department of Music undertook to establish a string quartet.<sup>154</sup> While visiting Rembert Wurlitzer in 1958, Kolbinson requested an appraisal document which could later be presented to the University of Saskatchewan to represent its purchase price for the quartet:

I asked that the quartet be appraised at \$20,000.00. I could have asked a higher price and they would have appraised it as such, but then this isn't a business as far as I'm concerned. Rembert Wurlitzer thought this very cheap and insisted on inserting in the appraisal that this figure was a very minimum.<sup>155</sup>

Rembert Wurlitzer personally provided a written valuation for the three instruments after examination at his premises, and also certified the authenticity of the violoncello on the

strength of a certificate from Hill and Sons in London.<sup>156</sup> His appraisal includes the wording 'we consider the above appraisal a very minimum valuation of the quartet'.<sup>157</sup>

Adaskin's initial failure to establish a university-based string quartet resulted in less use for the instruments than first anticipated. According to Gordana Lazerevich, who documented Adaskin's acquisition and use of the Amatis in a chapter entitled 'A Prairie renaissance of the arts', the instruments 'were only taken out of their vault for an occasional performance by a visiting musician'.<sup>158</sup> It was not until 1969 that regular use by a string quartet of faculty members was assured. Adaskin was joined by Norma Lee Bisha on the violin, Michael Bowie on the viola, and Edward Bisha on the cello on these occasions.<sup>159</sup>

Adaskin continued the relationship with Wurlitzer established by Kolbinson, requesting maintenance for the instruments on at least two occasions. Eight years after acquisition by the University he wrote that:

The 'Cello I believe, is slightly open at the top of the instrument where the neck joins it. The Nicolo Amati Violin has a set of impossible pegs which never function properly, and I would very much like to have them removed and replaced by a fine set properly fitted. The other violin and viola may merely require some touching up here and there.<sup>160</sup>

This treatment is not documented in Wurlitzer's files.<sup>161</sup> In view of a second transaction, some two years later, it is questionable whether the instruments were ever sent to New York on this occasion. In a letter of February 1968 to Thomas Bertucca, who was employed as a restorer by Wurlitzer, Adaskin states that the instruments have been sent, and that:

We would like you to give the instruments whatever attention they may require to bring them up to their best playing condition. However, we would ask that you attend to the following:  
The Nicolo Amati:

Replace mechanical pegs, with properly fitted ordinary pegs of the finest quality.  
Examine sound-post, bridge; and any possible openings or required adjustments.<sup>162</sup>

The request to replace the ‘mechanical pegs’ indicates that this work, mentioned in the correspondence to Sacconi, had not been done previously. However, the presence of what appear to be geared machine tuning heads on the Daisy Kennedy Amati raises the larger questions of when and where these devices were installed. Had they existed when Kolbinson showed the instruments in New York, such clearly spurious devices would certainly have been remarked. The instrument would very probably have been left with Sacconi for treatment, along with the viola. In addition, a photograph of Stephen Kolbinson and Murray Adaskin with the instruments, taken during the handling-over ceremony at the University in 1958, shows both violins with normal pegs.<sup>163</sup> The conclusion is that these geared tuning heads were installed locally, at some time in the eight years after acquisition by the University.

## **Analysis**

### *Actions*

The four instruments were serviced at least twice during this first period, providing them with ‘whatever attention they [might] require to bring them up to their best playing condition’.<sup>164</sup> The cello required closure of a crack, and one violin and the viola needed ‘some touching up here and there’.<sup>165</sup> The Daisy Kennedy violin needed more significant treatment; the addition of mechanical tuning heads to it while in the University’s care is particularly evocative of Currency, as it indicates that a putative improvement in the original design was valued.<sup>166</sup>

Action throughout this period is securely upon use as musical instruments. The emphasis of treatment is continuity, ensuring that the instruments remain current by craftsmanly maintenance when necessary.

### *Rationales*

In his desire to continue the playing status of the quartet of Amati instruments he had assembled, Stephen Kolbinson is demonstrating a set of deeply held and largely unarticulated assumptions that characterize the genre of historic bowed string instruments. Such aspects as ensuring the continuing value of the instruments through playing are made plain by the prices paid for individual items, and the valuation of the assembled quartet.

### *Context*

Such 19th-century developments as the publication of Otto's *Treatise*, and the pioneering work of Savart on the acoustics of the violin, lay the foundation for the special place that early violins now occupy.<sup>167</sup> The treatise of Heron-Allen, and the classic study of Stradivari by the Hills are evidence of the solidification of this trend at the end of the 19th century.<sup>168</sup> The ethos surrounding the possession of historic bowed string instruments is summarized late in the 19th century by Hepworth, who writes:

It is undoubtedly the moral duty of each generation to transmit to its successor all valuable instruments in as perfect a condition as possible. For this reason it should be the business of each player to consider any good instrument he may happen to own, as placed in his trust for the benefit of those who succeed him.<sup>169</sup>

A sense of continuity coupled with moral obligation is clearly articulated here. The fact that Kolbinson and Adaskin were able to consult with no less than three New York violin



specialists in the 1950s -- Emil Hermann, Jacques Français, and Rembert Wurlitzer -- indicates the dimensions and profitability of the classic violin field at that time.

### *Dissonances*

No dissonances are discernible at this phase of treatment. The instruments are confidently ensconced in Currency, and continuity is ensured through use. The gear-driven tuning heads show inconsistency in the local context; the craftsman who did this work was motivated purely by function, and was clearly unaware of how such work would be regarded by the bowed string establishment at large.<sup>170</sup>

### **8.3.3 Second Period: Fallow Period from 1973 until 1992**

#### **History**

On the retirement of Murray Adaskin from his teaching position at the University of Saskatchewan in 1973, the four instruments were also retired and placed in storage in the Department of Music.<sup>171</sup> The instruments had been examined and cared for periodically from 1970 by Professor Robert Klose, head of the Strings Programme. He continued his supervision until their care came under the aegis of the Head of the Music Department in 1985.<sup>172</sup> The quartet remained retired until 1992.

## **Analysis**

The transaction between active use of the quartet and retirement into storage begins a period of passive preservation. The regimen into which instruments fall is dictated by actions, underscored by rationales. Because the instruments remain unused, they are not subjected to craft intervention. Therefore, in the absence of action, the schema defaults to non-intentional passive preservation, which is largely undocumented.

### **8.3.4 Third Period: the Quartet on Loan**

## **History**

In 1992 a request was made to the University authorities by the Lafayette Quartet, the quartet-in-residence at the University of Victoria, British Columbia, for loan of the instruments. An agreement was ratified in a letter of understanding between the University of Saskatchewan and the University of Victoria.<sup>173</sup> Section 6 of the letter of understanding describes the measures to be taken in the care and treatment of the instruments:

The University of Victoria will be responsible for appropriate handling, storage and upkeep of the instruments, including maintenance and any repairs occasioned by normal wear and tear as a result of playing, transport, or exposure to changes in climate. However, where any repairs must be undertaken simply as a result of the age of the instrument, and would have become necessary whether the instrument had been played or not, the responsibility will be shared equally by the University of Victoria and the University of Saskatchewan. In the event that there is any dispute as to how a specific repair relates to this agreement, the two Universities will accept the opinion of a qualified repair firm to be chosen jointly.<sup>174</sup>

The instruments were passed over to the Lafayette Quartet in the Summer of 1992, and their first concert was given on September 20 of that year as one of the University of Saskatchewan's Celebrity Series.<sup>175</sup> On this occasion the Lafayette Quartet played Adaskin's *String Quartet No. 1*, and the Celebrity Series was renamed the Adaskin Concert Series in his honour.<sup>176</sup>

Support for the professional use of the quartet came from music critics. It was felt that 'the Amatis [...] had been languishing in their cases for years, and desperately needed to be played and maintained', and further that 'the instruments are best in the hands of professionals'.<sup>177</sup>

This critic, who wrote for the *Globe and Mail* newspaper, had followed the Lafayette Quartet's career since acquisition of the Amati instruments:

The Amati's sound in that first concert [1993] was anticlimactic, but a year later, after the instruments had been worked on and played in, it was a revelation [...] Those who think the instruments are best in the hands of professionals point to the fact that not only are the instruments shown to the best advantage as a set, they have improved in the Lafayette's care. The collection - originally purchased in 1958 for a mere \$20,000 - is now valued at more than \$1.25-million.<sup>178</sup>

Towards the end of the Lafayette Quartet's tenure of the instruments, a questionnaire on the conditions of their use, patterns of service, and general well-being was conducted by the CCI.<sup>179</sup> The following description of treatment is quoted from this source:

By whom were the instruments serviced?

The names provided were Roland Feller (San Francisco), and Kim Tipper (Victoria), Horst Übel (Parma, Ohio), and David van Zandt (Seattle). The choice of instrument serviceman depended largely upon location of the instrument and player at the time when servicing was necessary, although because Kim Tipper was resident in Victoria his services were used more often.

How frequently were the instruments serviced?

On average the instruments were inspected every six months, although servicing was done more on a the basis of perceived need. If the instrument was working satisfactorily, no action needed to be taken.

What work was done during regular service?

Work includes adjustments to set-up (particularly re-setting of the soundpost), minor retouching of varnish on areas of wear, and re-stringing.

Had any major problems been observed?

The 1627 violin had a fallen arch on the treble side and a crack had recently been observed in the same area. The pegs of the viola sometimes failed to grip, especially in dry climates, and it was estimated that they might need rebushing fairly soon. The edges outside the purfling of the viola were chipped in several places on the treble side and it was considered that repair and replacement would be needed.

Had any major work been necessary?

The violoncello was accidentally dropped while in its case, causing the scroll to become detached from the neck. The whole neck was removed and replaced with a new one, to which the original scroll was grafted.<sup>180</sup> The crack in the 1627 violin was repaired by removing the belly and gluing a wood button across the crack from the inside (See Figure 10). Several other areas of weakness were repaired while the instrument was apart, and the work was documented with photographs. Treatment on both instruments was done by Kim Tipper in Victoria.

Were there any playing idiosyncrasies?

The 'g' string of the violoncello was reported to be 'muddy', but the re-necking apparently cured this. No other idiosyncrasies were reported, although all players reported that the instruments had rapidly improved with playing since the Quartet had started using them, and were now at the peak of their efficiency.

How were the instruments transported and stored?

The instruments were kept in their cases at all times and were rarely, if ever, out of possession of the Quartet members. The violoncello had an air ticket purchased for it routinely.

Was the immediate environment of the instruments monitored?

No environmental monitoring was done.

How was the immediate environment of the instruments controlled?

No control of environment was considered practically possible when travelling with the instruments between venues of widely differing climate. Moisture wicks were kept in the instruments' 'f'-holes to provide a certain amount of buffering.

How much playing time did the instruments have per day?

The players generally agreed that each instrument had between four and five hours of use per day.<sup>181</sup>

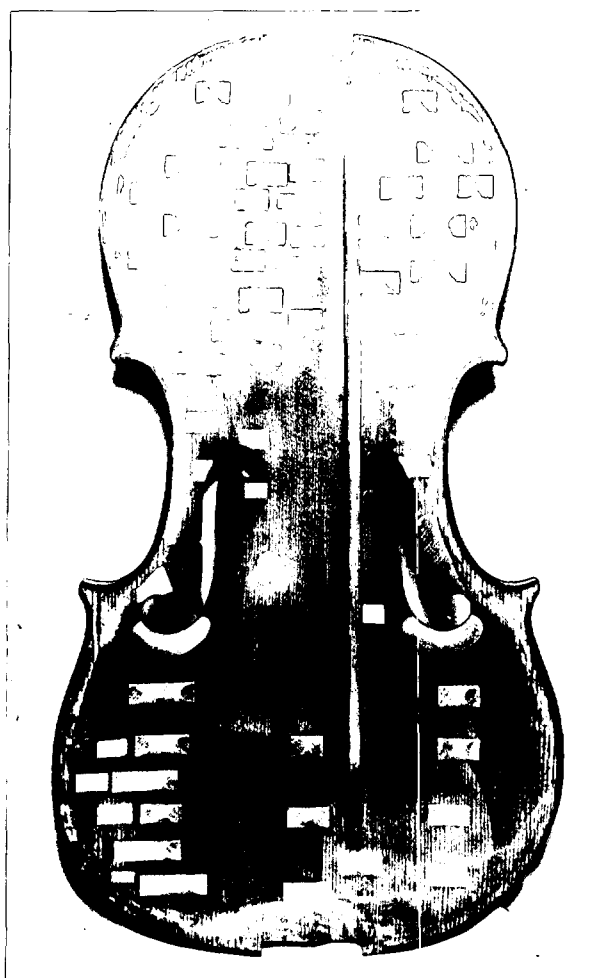


Figure 10. Underside of the belly of the 1627 Antonius and Hieronymus Amati violin, showing multiple repairs carried out over the instrument's history.

Review of the loan agreement in 1996 occasioned a reassessment of the role of the University in its custodianship. Concern had been expressed that use by professional musicians during world-wide concert engagements would result in damage. Regarding travel and use of the quartet, the Musical Instrument Standing Committee of the University professed itself ready to be 'guided by the policies of other institutions which own historic instruments'.<sup>182</sup> To this end a series of consultations with a wide range of specialists in the care and preservation of

historic musical instruments was undertaken. Richard T. Rephann, Professor of Music at the Yale University Collection of Musical Instruments, said that 'just because they would be used by professional quartets does not mean they are not going to be abused'.<sup>183</sup> He further argued, regarding the sound of the instruments:

Modern instruments are designed for modern players--these Amatis are not. Their creators would not recognize their own instruments [...] the Amatis today don't sound anything like their creator intended, especially the second violin and viola (cut back).<sup>184</sup>

'Cut back' refers to the practice of making the instrument smaller by cutting down the belly and back, and re-shaping the ribs. Robert Sheldon, Conservator of Musical Instruments at the Library of Congress in Washington D.C., was of the opinion that:

The instruments should not be taken on and off aircraft, or in and out of automobile trunks. [They] are already over-stressed now with all the playing that has been done on them; given the style of modern playing, when travel is added to this, the life-span of the instruments is greatly shortened.<sup>185</sup>

On the other hand, René Morel, a New York specialist in rare violins, argued for the continuation of playing status:

One has to remember that most of the world famous virtuoso [*sic*] are travelling to extreme humidity and extreme temperature and yet, while these people know what to do, they manage to keep their instruments in perfect playing and esthetic condition.<sup>186</sup>

He provided evidence in the regular playing of the Stradivarius, Guarnerius and Amati instruments in the Library of Congress in Washington D.C., and of the Amati Quartet in the Corcoran Gallery, the instruments of which, after being played regularly for twenty years by the Tokyo Quartet, were 'in better shape than when first loaned to them'.<sup>187</sup> On the subject of the condition of the wood, he attributes its longevity to a ground coating that prevents oxidation, and says that 'up to these days, these ingredients or that ingredient is called "a secret"'.<sup>188</sup>

Support for Morel's stance on the efficacy of continued playing status is seen in the following excerpt from a letter to the *Saskatoon Post*, the local newspaper:

There has been concern that constant use and the attendant travel of concertizing will be detrimental to the instruments. To suggest cavalier handling of the instruments by any musician responsible for their welfare is ludicrous. Consider the many old and valuable string instruments in regular use by the great players of today. You can be assured their instruments receive the utmost expert care and attention as they travel the concert world [...] The Amatis must be used and maintained to their full worth. To bring them back to Saskatoon to languish in splendid silence would be sinful.<sup>189</sup>

## Analysis

### *Actions*

Continuing function is clearly of first importance during this third period. The loan agreement to the Lafayette Quartet is predicated upon the instruments' having regular and intensive use. It is accepted that this process will result in damage, and the consequent need for maintenance. Two scenarios are described in the loan agreement: 'repairs occasioned by normal wear and tear as a result of playing, transport, or exposure to changes in climate', and those attributed 'to the age of the instrument [which] would have become necessary whether the instrument had been played or not'.<sup>190</sup> No specific allowance is made for damage due to accident.

The work either done to the instruments, or contemplated, can be divided into that associated with normal use, that occasioned by the age and condition of the instruments, and that necessary after accidental damage. The treatment offered the instruments during this period can be contrasted with the opinions of the correspondent to the *Saskatoon Post*, who argues

that ‘to suggest cavalier handling by the musicians responsible [...] is ludicrous’.<sup>191</sup> Violin specialist René Morel states that professional musicians know how ‘to keep their instruments in perfect playing and esthetic condition’.<sup>192</sup> This subscription to a schedule of repair-based maintenance places the action securely in the regimen of Currency.

### *Rationales*

Subjective elements characteristic of Currency are evident in the correspondence over use of the instruments and the reassessment of their disposition. Elements of personification appear in the concept of ‘development’ of the instruments through playing. This is cited by music critic Elissa Poole, who states that the first concert on the instruments was ‘anticlimactic’, but that in a year the results was ‘a revelation’.<sup>193</sup> The members of the quartet themselves concur, stating that the instruments had improved *through being played* and were at the peak of their efficiency.<sup>194</sup> Personification is also evident in the views that the instruments ‘had been languishing in their cases for years, and desperately needed to be played and maintained’.<sup>195</sup> The need is placed upon the instruments, not their users. A further subjective element is Morel’s evocation of the arcane in his statement that the longevity of the instruments is a result of a secret ground coating that prevents oxidation.<sup>196</sup>

### *Context*

Treatment of the Amati Quartet is in line with the sentiment expressed at the Cremona *Day of Studies* in 1975: ‘Keeping the antique instruments alive, saving, above all [...] their more specific playing individuality, their relationship with the present, in short, with the history of music.’<sup>197</sup> This indicates the continuing strength of the values of Currency. However, the



University's review of the use of the Amati Quartet brings in widely dissenting views from the museum community. The context is now widened to include museum views which had been widely expressed in the contemporary literature. Typical of these sentiments is that expressed by conservator Cary Karp in assuring 'the material survival of the musical instruments in their holdings to the fullest extent permitted by the current state of conservation science'.<sup>198</sup>

It is important to stress that the extent of treatment needed for the instruments while they were in use by the Lafayette Quartet is not atypical. Figure 10 gives an idea of the major repair work the Antonius and Hieronymus Amati violin of 1627 had undergone before its most recent treatment. Within the context of the Currency regimen, and allowing for the wear and tear with playing specified in the University's contract, the work done upon the instruments is well within what would be expected.

### *Dissonances*

Viewpoints opposed to playing status come from musical instrument curator Richard Rephann who speaks of the possibility of abuse, and conservator Robert Sheldon, who states that the instruments of the quartet are already over-stressed.<sup>199</sup> Thus, once the Currency regimen in which the instruments are immersed is exposed, dissonance arises. The tension of the dialectic is evident in the strength of the language used in defence of Currency; such words as 'cavalier', 'ludicrous', and 'sinful' indicate the height of feelings that potential retirement of the instruments occasions.

An element of irrelevancy is introduced when an increase in the instruments' monetary value from \$20,000 to \$1.25-million over the period of the Lafayette Quartet's use is equated with their musical efficiency.<sup>200</sup> Firstly, the evaluation of \$20,000 for the four instruments provided by Wurlitzer in 1958 represents a figure artificially lowered by Kolbinson, who had no wish to profit from his beneficence.<sup>201</sup> Secondly, when the figures for diminishing dollar purchasing power through inflation are factored in, the figure of \$20,000 in 1958 becomes \$119,200 by 1996.<sup>202</sup> Thirdly, the increasing monetary value of rare violins over four decades, regardless of their active or passive roles, must be allowed for. Lastly, the monetary value of the instruments, when the Lafayette Quartet assumed custodianship in 1993, is substituted for their assigned value in 1958. Thus, the statement that the instruments had increased in value from \$20,000 to \$1.25-million within the period of the Lafayette Quartet's tenure, is highly inconsistent. This faulty logic appears to be used as a justification for the continuing playing status of the quartet.

### **8.3.5 Synopsis of the Three Periods**

When the Amati instruments were first assembled as a quartet in 1958 they were acquired in working condition from practising musicians. Their continued working state in the regimen of Currency was an assumption, a projected career only interrupted by a lack of musicians to play them. The two resting periods, one at the beginning of the University of Saskatchewan's custodianship, and the other after Adaskin's retirement, were imposed by practical considerations not related to the state and condition of the instruments, and there was no conscious desire to preserve them in this non-playing state.

The review of the Lafayette Quartet's custodianship exposed the decision-making process to a wider audience, and thus challenged the assumptions of the Currency regimen. This act initiated the dialectic of 'play or preserve', and thus exposed the polarized views.

## NOTES

1. McArthur, p. 3.
2. Schau, 'Musical Past', p. 17.
3. Schau, 'Musical Past'. p. 18.
4. There is some evidence that there were actually three organs; two barrel organs and one keyboard instrument. After the Study was built, it is noted that 'so great was the old man's [Willson's] love of music that he had another crank pipe organ built for it' (*North York Intelligencer and Advertiser*, 28 October 1898).
5. Schau, 'Musical Past', p. 18.
6. Artifact catalogue, Sharon Temple Museum.
7. Pain, pp. 521-538.
8. Carelse, Clement, letter to author, 15 October 1993.
9. *ibid.*
10. Payzant, 'Barrel Number 3', pp. 6-11; and Payzant, 'Rebirth', pp. 7-11.
11. Schau, 'Musical Past', pp. 18-20.
12. Ord-Hume, p. 409.
13. Schau, 'Sacred Music', p. 128.
14. Anon., undated, Sharon Temple Museum records, Sharon, Ontario.
15. As pointed out earlier, there is some evidence that a new organ was built specifically for the Study.
16. Anon., *The North York Intelligencer and Advertiser*, Newmarket, Ontario, 28 October 1898.

17. John Ross Robertson Collection, Metro Toronto Library, Toronto.
18. Hill, Donald, letter to author, 16 May 1994, p. 2.
19. Thompson, p. 8.
20. Kopytoff, p. 73.
21. Thompson, p. 10.
22. Note to file, records of Sharon Temple Museum, Sharon, Ontario.
23. Payzant, 'Rebirth', p. 7.
24. Schau, 'Sacred Music', pp. 92-93.
25. Wright, Donald, letter to Helmut Kallmann, 2 September 1974, correspondence of Helmut Kallmann.
26. Reproduced in Schau, 'Sacred Music', pp. 92-136.
27. Schau, 'Sacred Music', pp. 92-93.
28. Reproduced in Schau, 'Sacred Music', pp. 92-136.
29. Fuller, p. 165.
30. Berner, et al, p. 8.
31. Taruskin, p. 146.
32. *ibid.*
33. Kallmann, pp. 115-116.
34. Payzant, 'Rebirth', p. 8.
35. Draft of concert programme, records of the Sharon Temple Museum.
36. Angus, Gordon, letter to author, 14 April 1994, p. 2.
37. Payzant, 'Rebirth', p. 8.
38. *ibid.*
39. Payzant, Geoffrey, letter to author, 16 July 1984.
40. Payzant, 'Rebirth', p. 7.

41. Payzant, 'Rebirth', p. 9.
42. Angus, Gordon, letter to author, 14 April 1994, p. 2.
43. Payzant, 'Rebirth', p. 8.
44. *ibid.*
45. Moreni, p. 91.
46. Berner, et al.
47. Karp, 'Restoration'.
48. Payzant, 'Barrel Number 3', p. 7.
49. Payzant, 'Rebirth', pp. 10-11.
50. Payzant, 'Barrel Number 3', p. 11.
51. Payzant, 'Barrel Number 3', p. 9.
52. *ibid.*
53. Although completed over a decade apart, the caseworks of both instruments appeared to have been finished by the same hand. The finish on the keyboard organ was noticeably more deteriorated on account of its exposure to sunlight, especially on one side of the upper section. (Barclay, R. L., *Surface Treatment of Coates Organs*, unpublished report (Ottawa: Canadian Conservation Institute, 1983).)
54. *ibid.*
55. Payzant, 'Barrel Number 3', pp. 10-11.
56. Seidel, p. 130.
57. Seidel, pp. 130-131.
58. Audsley, p. 213.
59. Werckmeister, pp. 18-19.
60. Seidel, p. 182.
61. Matthews, p. 9.
62. Payzant, 'Barrel Number 3', p. 11. The advice actually came from Noel Mander, an organ-maker in the United Kingdom, although another commentator states that 'we do not know if the facts presented to Mr. Mander were accurate'. (Angus, Gordon, letter to

author, 14 April 1994.)

63. Payzant, 'Barrel No. 3', p. 11.

64. *ibid.*

65. *ibid.*

66. Fitch, Howard, M., letter to York Pioneer Historical Society, undated, records of Sharon Temple Museum.

67. Payzant, G., 'The Barrel No. 3 Project - a Review', transcript of a presentation to York Pioneer Historical Society, 21 March 1985.

68. Payzant, 'Rebirth', p. 11.

69. Barclay, R.L., *Conservation of the Richard Coates Barrel Organ*, unpublished report (Ottawa: Canadian Conservation Institute, 1991)

70. Payzant, G., 'The Barrel No. 3 Project - a Review', transcript of a presentation to York Pioneer Historical Society, 21 March 1985.

71. Payzant, 'Rebirth', pp. 10-11.

72. Payzant, G., 'The Barrel No. 3 Project - a Review', transcript of a presentation to York Pioneer Historical Society, 21 March 1985.

73. Payzant, 'Rebirth', pp. 10-11.

74. Payzant, 'Barrel Number 3', p. 11.

75. Morgan, p. 68.

76. Payzant, 'Rebirth', p. 11.

77. Payzant, 'Barrel Number 3', p. 11.

78. *ibid.*

79. Karp; and Barnes.

80. Barclay, *Canadian Collections*.

81. Payzant, 'Barrel No. 3', p. 11.

82. Barclay, R. L., *Conservation of the Richard Coates Barrel Organ*, unpublished report (Ottawa: Canadian Conservation Institute, 1991)

83. *ibid.*

84. Kallmann and Potvin, p. 542.
85. Archives and Database, Steinway and Sons, New York.
86. *ibid.*
87. Anon., 'Glenn Gould's Piano at Rideau Hall', Realty and Development, Official Residences Division, records of the National Capital Commission, Ottawa.
88. MacSween, Donald, letter to Rebecca Sisler, 21 January 1983, records of the National Capital Commission, Ottawa.
89. Mackay, John A.H., letter to Esmond Butler, 28 February 1983, records of the National Capital Commission, Ottawa.
90. *ibid.*
91. Anonymous note to file, records of the National Capital Commission, Ottawa.
92. Dove, Stephen, K., transcript of personal communication by telephone from Steinway and Sons, 13 May 1996.
93. Remenyi M., letter to Helmut Kallmann, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
94. Archives and Database, Steinway and Sons, New York.
95. MacSween, Donald, letter to John A.H. Mackay, 2 February 1983, records of Rideau Hall, Ottawa.
96. Realty and Development, Official Residences Division, records of the National Capital Commission, Ottawa.
97. Lauzon, Kenneth, transcript of personal communication to author, 14 June 1995.
98. Maintenance record, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
99. Matthais, p. 88.
100. Liner notes to *J.S. Bach: Two- and Three-part Inventions*, Columbia recording ML 6022, quoted in Payzant, *Glenn Gould*, p. 106. In this quotation Gould likens the 'natural tendency' of the Steinway piano to the automatic transmission of a car. The sense of control and immediacy is lost through the interposition of the mechanism.
101. Mackay, John A.H., letter to Esmond Butler, 28 February 1983, records of the National Capital Commission, Ottawa.
102. Kopytoff, p. 73.

103. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission, Ottawa.
104. Sisler, Rebecca, memorandum to file, 21 January 1983, records of the National Capital Commission, Ottawa.
105. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission, Ottawa.
106. *ibid.*
107. Butler, Esmond, letter to John A.H. Mackay, 2 February 1983, records of the National Capital Commission, Ottawa.
108. Mackay, John A.H., letter to Esmond Butler, 28 February 1983, records of the National Capital Commission, Ottawa.
109. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission, Ottawa.
110. Sisler, Rebecca, memorandum to file, 21 January 1983, records of the National Capital Commission, Ottawa.
111. Butler, Esmond, letter to John A.H. Mackay, 2 February 1983, records of the National Capital Commission, Ottawa.
112. Sisler, Rebecca, memorandum to file, 21 January 1983, records of the National Capital Commission, Ottawa.
113. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission; and Butler, Esmond, letter to John A.H. Mackay, 2 February 1983, records of the National Capital Commission, Ottawa.
114. Kallmann and Potvin, p. 542, col. 3.
115. *ibid.*
116. *ibid.*
117. Lowenthal, p. 52.
118. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission, Ottawa.
119. Lauzon, Kenneth, transcript of personal communication to author, 15 August 1995.
120. *Macleans Magazine*, 11 April 1983, p. 33.



121. Beltrame, Julian, 'Discord sounded over restoration of Gould piano', *The Ottawa Citizen*, 23 April 1983, p. 9.
122. Lauzon, Kenneth, transcript of personal communication to author, 14 June 1995.
123. These pictures are on display in Lauzon Music, Wellington Street, Ottawa.
124. Beltrame, Julian, 'Discord', *The Ottawa Citizen*, 23 April 1983, p. 9.
125. *ibid.*
126. *ibid.*
127. *ibid.*
128. Payzant, *Glenn Gould*, p. 146.
129. Byrne, Richard, O. and Weaver, Martin, E., 'Piano scars reflect perfection', *The Ottawa Citizen*, 3 May 1983, p. 8.
130. *ibid.*
131. Anonymous, Rideau Hall publicity material, 30 November 1983, records of the National Capital Commission, Ottawa.
132. Lauzon, Kenneth, transcript of personal communication to author, 14 June 1995.
133. Byrne, Richard, O. and Weaver, Martin, E., 'Piano scars reflect perfection', *The Ottawa Citizen*, 3 May 1983, p. 8.
134. *Macleans Magazine*, 11 April 1983, p. 33.
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136. *ibid.*
137. Beltrame, Julian, 'Discord sounded over restoration of Gould piano', *The Ottawa Citizen*, 23 April 1983, p. 9.
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139. *ibid.*
140. Byrne, Richard, O. and Weaver, Martin, E., 'Piano scars reflect perfection', *The Ottawa Citizen*, 3 May 1983, p. 8.
141. *ibid.*
142. *ibid.*

143. MacSween, Donald, letter to Esmond Butler, 11 January 1983, records of the National Capital Commission, Ottawa.
144. Lazerevich, p. 205.
145. Adaskin, Murray, 'The Amati Quartet of Instruments', unpublished notes, files of the Department of Music, University of Saskatchewan.
146. Lazerevich, p. 205.
147. Purchase Agreement, records of the Department of Music, University of Saskatchewan.
148. Lazerevich, p. 205.
149. 'Letter of Understanding Between the University of Saskatchewan and the University of Victoria', 27 November 1992, records of the Department of Music, University of Saskatchewan.
150. Kolbinson, Stephen, letter to Murray Adaskin, 25 June 1958, records of the Department of Music, University of Saskatchewan.
151. *ibid.*
152. Wurlitzer, Marianne, transcription of personal communication to author by telephone, February 1998.
153. Lazerevich, p. 205.
154. Purchase Agreement, records of the Department of Music, University of Saskatchewan.
155. Kolbinson, Stephen, letter to Murray Adaskin, 25 June 1958, records of the Department of Music, University of Saskatchewan, p. 2.
156. Wurlitzer, Rembert, letter to University of Saskatchewan, 17 June 1958, records of the Department of Music, University of Saskatchewan.
157. *ibid.*
158. Lazerevich, p. 205.
159. Stanis, Sharon, letter to author, 10 December 1998.
160. Adaskin, Murray, letter to Simone Sacconi, 3 May 1966, records of the Department of Music, University of Saskatchewan.
161. Wurlitzer, Marianne, transcript of personal communication to author by telephone, February 1998.

162. Adaskin, Murray, letter to Simone Sacconi, 5 February 1968, records of the Department of Music, University of Saskatchewan.
163. Photograph without caption, records of the Department of Music, University of Saskatchewan.
164. Adaskin, Murray, letter to Simone Sacconi, 5 February 1968, records of the Department of Music, University of Saskatchewan.
165. *ibid.*
166. *ibid.*
167. Savart, *Mémoire*, 1819.
168. Heron-Allen, *The Violin*; and Hill, *Stradivari*.
169. Hepworth, p. 2.
170. In commenting upon treatment procedures of this genre of instruments, violin connoisseur Charles Beare argues that the central characteristic of the industry was that of the development of good taste in restoration. Replacement of the traditional pegs with geared tuning heads would be considered in very poor taste (Beare, p. 9-11).
171. Lazerevich, p. 206.
172. Klose, Robert, *Proposal for the Quartet of Amati Instruments at the University of Saskatchewan as presented by the Department of Music to the University Committee on the Amati Instruments*, internal document, records of the Department of Music, University of Saskatchewan, p. 3.
173. 'Letter of Understanding Between the University of Saskatchewan and the University of Victoria', 27 November 1992, records of the Department of Music, University of Saskatchewan.
174. *ibid.* p. 3.
175. Stanis, Sharon, letter to author, 10 December 1998.
176. *ibid.*
177. Poole, Elissa, 'Making Music with Strings Attached', *The Globe and Mail*, 30 November 1996.
178. *ibid.*
179. Barclay, R.L., *Recommendation for the University of Saskatchewan Amati Quartet*, unpublished report (Ottawa: Canadian Conservation Institute, 1996)

180. According to R. Kim Tipper, who did this work, this was at least the fourth neck that the instrument had received (letter to author, 19 January 1999).

181. Assuming the same figure on average historically, it can be calculated that the 1607 viola had had 640,575 hours of playing.

182. Klose, Robert, *Proposal for the Quartet of Amati Instruments at the University of Saskatchewan as presented by the Department of Music to the University Committee on the Amati Instruments*, internal document, records of the Department of Music, University of Saskatchewan, p. 7.

183. Rephann, Richard T., in Klose, p. 10.

184. *ibid.*

185. Sheldon, Robert, in Klose, p. 10.

186. Morel, René, letter to The Board of Governors of the University of Saskatchewan, 31 December 1996, records of the Department of Music, University of Saskatchewan, p. 2.

187. *ibid.*, p. 1.

188. *ibid.*

189. Whelan, John M., 'Crime to let Amatis sit silent and unused', *Saskatoon Post*, 20 December 1996, p. A5.

190. 'Letter of Understanding Between the University of Saskatchewan and the University of Victoria', 27 November 1992, records of the Department of Music, University of Saskatchewan.

191. Whelan, John M., 'Crime to let Amatis sit silent and unused', *Saskatoon Post*, 20 December 1996.

192. Morel, René, letter to The Board of Governors of the University of Saskatchewan, 31 December 1996, records of the Department of Music, University of Saskatchewan, p. 2.

193. Poole, Elissa, 'Making Music with Strings Attached', *The Globe and Mail*, 30 November 1996.

194. Barclay, *Recommendation*, p. 6.

195. Poole, Elissa, 'Making Music with Strings Attached', *The Globe and Mail*, 30 November 1996.

196. Morel, René, letter to The Board of Governors of the University of Saskatchewan, 31 December 1996, records of the Department of Music, University of Saskatchewan, p. 1.

197. Pinzauti, p. 133.
198. Karp, *Per una carta*, p. 284.
199. Klose, p. 10.
200. Poole, Elissa, 'Making Music with Strings Attached', *The Globe and Mail*, 30 November 1996.
201. Kolbinson, Stephen, letter to Murray Adaskin, 25 June 1958, records of the Department of Music, University of Saskatchewan, p. 2.
202. Gamson, Robert, transcript of personal communication to author by telephone, 28 May 1998, Statistics Canada, Government of Canada.

## **CHAPTER NINE - CRITICAL ANALYSIS: RESTITUTION**

This chapter focuses on three case studies in which values in the Restitution regimen come to overlie and replace those of Currency. The case studies deal with a Steinway piano owned by Glenn Gould, which is now preserved in the National Library of Canada in Ottawa, the Hart House viols from the University of Toronto, and a fortepiano made by Johannes Zumpe, now in Emmanuel College, Cambridge. The values of Restitution are seen in actions of restoration and maintenance to establish and continue working condition, and in rationales based upon the search for authentic experience and the belief in a definitive earlier state.

### **9.1 STEINWAY PIANO IN THE NATIONAL LIBRARY OF CANADA**

#### **9.1.1 Introduction**

Canadian pianist Glenn Herbert Gould (1932-1982) possessed several pianos which he used for concerts, recordings and practice. Five instruments he owned are extant: a Chickering of 1895 in Toronto; a Yamaha grand in Roy Thompson Hall, Toronto; a Steinway grand in Rideau Hall, the Governor General of Canada's residence in Ottawa; a Steinway grand in Central United Church, Edmonton, Alberta; and the instrument under study here, a Steinway 8' 11" grand of 1943.<sup>1</sup> The instrument was completed by Steinway and Sons of New York on 2 March of that year and was given the serial number D317194.<sup>2</sup> It was purchased by the T. Eaton Company of Toronto for their Concert and Artist Fleet on 2 March 1951. Eaton's gave it the serial number CD 318, the 'CD' designation being applied to all the instruments of the

Concert and Artist Fleet.<sup>3</sup> The designation CD 318 will be used throughout this case study as this is the number by which Glenn Gould knew it, and the way the instrument is now referred to in the literature. The piano has been described as ‘the one that Gould loved best’<sup>4</sup> and he himself says it is the instrument ‘to which I feel a greater devotion than to any other piano that I have encountered’.<sup>5</sup> CD 318 is the instrument upon which he played many concerts and also made most of his recordings.



Figure 11. Steinway piano, CD 318, situated in the foyer of the National Library of Canada.

While in the possession of the T. Eaton Company, from 1951 onwards, the piano was still under a service contract to Steinway and Sons. It was leased from Eaton's by many concert players, and it was during the latter part of this period that Gould became acquainted with it.

He began to make adjustments to it in 1960.<sup>6</sup> His growing attachment to the piano eventually led to his purchase of it from Eaton's in 1970.<sup>7</sup>

Gould was extremely particular about his instruments and, having become familiar with their idiosyncrasies, insisted upon using them wherever possible. CD 318 was frequently transported to various recording and concert venues during its major period of use. During shipment in 1971 it was dropped and severely damaged. Repairs were carried out in Steinway's workshops and although he used it for some years afterwards, Gould eventually replaced the piano with a newly purchased Yamaha upon which he made his last recording, J.S. Bach's *Goldberg Variations*.<sup>8</sup>

After Glenn Gould's death in 1982 his estate offered the piano for sale to the National Library of Canada in Ottawa, with the stipulations that it remain in the condition in which Gould used it, and that regular concerts be given on it.<sup>9</sup> The National Library agreed to these conditions and the piano was delivered on 29 November 1983. Its condition was monitored and repairs made when necessary. Regular tuning was contracted out to an Ottawa tuner, while Gould's tuner in Toronto was consulted as the need arose.<sup>10</sup> The inaugural concert on the piano was given by Canadian pianist Angela Hewitt in the foyer of the National Library of Canada in the Autumn of 1986.

Three distinct periods in the history of Steinway piano CD 318 can be identified from the above introductory material:



- Use by Glenn Gould
- Accidental damage, and repair work by Steinway
- Purchase by the National Library of Canada in 1983.

The history of the instrument is documented in detail below, and activity within these periods is analysed.

### **9.1.2 First Period: Use by Glenn Gould**

#### **History**

From the time of its purchase in 1951 until 1970 the piano bearing the designation CD 318 was owned by the T. Eaton Company, and lent to a variety of unknown concert pianists as part of their Concert and Artists Fleet.<sup>11</sup> Records of these transactions were not retained by the Eaton Company, so the use of the instrument and its various locations during this period are unknown.<sup>12</sup>

It was during this lease period that the Steinway piano became regarded by Glenn Gould as something more than a run-of-the-mill instrument. By 1960 he had started to make radical changes to its action. It is noteworthy that the tuner who worked for Eaton's during this period thought it 'terribly worn out and Eaton's didn't want to repair it'.<sup>13</sup> However, once Glenn Gould had become familiar with it, he is said to have stated that he 'found it right for

his own tastes [...] and was not much concerned with piano tone quality, more with how it played'.<sup>14</sup> In an interview Gould described the features of CD 318 in the following way:

This piano has a very light action, as indeed all pianos that I prefer do. Many people say it's tinny and sounds like a harpsichord or a fake harpsichord or God knows what. Maybe it does. I think it has the most translucent sound of any piano I ever played.<sup>15</sup>

The piano had been used for his recordings, broadcasts and performances from the early 1960s and was kept in working condition by Verne Edquist, a tuner based in Toronto.<sup>16</sup>

A diagram of the Steinway piano action, and a discussion of Gould's specifications appears in Section 8.2.2. He had developed this radical adjustment of the action to suit his unorthodox, straight-fingered playing style, and he was clearly attempting to recapture the tactility of his first piano, the 1895 Chickering which was the standard for his judgement.<sup>17</sup> However, it is also clear that the specifications he was trying to recapture were never well defined in his own mind. Geoffrey Payzant, the author of a biography of Gould, says of his search for perfection:

The Chickering may be Gould's dream of perfection, but it is the nightmare of every piano technician who has worked on a Steinway for him, trying to adjust the action to what Gould at that moment remembers as the feel of the Chickering's.<sup>18</sup>

Verne Edquist, the tuner whom Gould employed for many years, stated that 'nothing precise could really be said about the desired specifications'.<sup>19</sup>

During its ownership by Eaton's Gould had been given exclusive use of CD 318, and he was able to make all the adjustments he required unopposed.<sup>20</sup> As it was actually considered to be 'terribly worn out', Eaton's had little reason not to accede to its use by him on a regular basis. Gould eventually purchased the piano from Eaton's on 24 October 1970. Edquist, the tuner,

was apparently able to do things to the piano which even Steinway's considered beyond the capabilities of their staff. Payzant remarks that 'one can imagine the tension at Steinway and Sons, since Gould's ideas of "immediacy and clarity" are unconventional, to say the least'.<sup>21</sup> In a later letter to Steinway and Sons, Gould speaks of being 'proud indeed to add [the piano] to my "rare" instrument collection'.<sup>22</sup>

## **Analysis**

### *Actions*

At this stage of its life the piano is firmly rooted in the Currency regimen. Even though 'terribly worn out' it was considered valuable enough by Gould for intervention to be made to keep it in working condition.<sup>23</sup> The fact that Gould was unable to articulate clearly what he wanted of a piano's action is further evidence that continuous maintenance of the mechanism was not only necessary, but desirable.

### *Rationales*

Unlike the other Steinway, which was regarded as Gould's 'working piano', the sources indicate that this instrument can already be regarded as singularized. Although at this stage it is in continuous daily use, is regularly maintained, and is regarded by Gould and his tuner as a utensil, this piano begins to accrue some attributes of an object in the 'symbolic inventory of a society'.<sup>24</sup> Evidence of the cultural marking of the piano through its association with Glenn Gould is seen in a contemporary interview, where reference is made to his unique

requirements of the instrument.<sup>25</sup> Thus, the elevation of the instrument due to its association with his genius reflects subjective values in the Currency regimen.

### *Context*

Glenn Gould's influence upon the pianistic interpretation of keyboard music, particularly Bach's keyboard works, has been discussed earlier (Section 8.2.3). At this stage, Steinway piano CD 318 is an essential component in the creative and interpretive context of his music, and its capacity for adaptation to the demands upon it place it securely in the social sphere where there exists a 'living past bound up with the present'.<sup>26</sup> The Steinway piano represents a constantly renewable and functional resource. The work done upon the instrument was not documented, and the only sources are secondary ones resulting from interviews with Gould. Adjustments to the piano were made through experience arising from tradition, but much adapted to suit individual requirements.

### *Dissonances*

There is no evident conflict or dissonance in the approach to the treatment of CD 318. As a working utensil, albeit already acquiring symbolic value, its treatment is clear and unequivocal. Considerations of preservation or protection from intervention simply cannot be entertained as it is in constant use. The tension at Steinway and Sons over Gould's unconventional ideas of 'immediacy and clarity' are indicative only of an internal conflict over the technical approach to maintaining the instrument.<sup>27</sup>

### 9.1.3 Second Period: Accidental Damage and Repair

#### History

After being damaged by dropping during shipment in 1971, CD 318 was returned to Steinway and Sons for repair.<sup>28</sup> In a letter to the firm in New York, Gould reported the following damages:

The plate is fractured in four critical places. The lid is split at the base end and there is also considerable damage to it towards the treble end as well. The sounding board is split at the treble end. Key slip pins are bent out of line.<sup>29</sup>

Repair work was carried out by Franz Mahr, the expert repairer at the Steinway workshops, and on 14 February 1973 Gould was able to report that 'for all intents and purposes CD 318 was saved from the scrap heap'.<sup>30</sup> Gould spoke of the 'miraculous rebirth of the instrument'.<sup>31</sup> In the seven years from 1973, when the repaired piano was returned from Steinway's, it was still being used by Gould, but finally in 1980 'he at last abandoned it because even *he* had to admit that it was beyond redemption'.<sup>32</sup>

Glenn Gould's change to a Yamaha instrument for his last recording indicates that the Steinway was not working for him the way it had before, although it is not known whether the accidental damage had contributed to his eventual disenchantment with it.<sup>33</sup> However, his extreme pedantry regarding the set-up of his instruments, together with his notorious inability or unwillingness exactly to describe what he was seeking, might have militated against satisfaction with the repair work. As Geoffrey Payzant notes:

Glenn Gould does not tell us what he is seeking from his endless, agitated tinkering with his piano. Perhaps he does not know or, more likely, he does not want to look into the matter for fear of centipedal [*sic*] consequences.<sup>34</sup>

Whether there was a tangible difference in the instrument's feel after repair and restoration is not the issue; at issue is the synergistic way in which the player related to the instrument, and the fragility of this relationship. However, regardless of his own inability to continue using CD 318, Glenn Gould did not consign it to 'the scrap heap', but retained it unused.

## **Analysis**

### *Actions*

The action of attempting a return to working condition after damages occurred is fully consistent with continuity through maintenance. The role of the workshop at the Steinway premises was the repair of damages, and in view of the difference of opinion between their technicians and Gould's tuner, it is unlikely that any adjustment work was done upon the action there.<sup>35</sup>

### *Rationales*

There is no evidence of any subjective component to the rationales for taking action upon the piano, except that the work was put under the expertise of Franz Mahr, and so accorded with Gould's celebrity status. Once the repair was completed Gould, himself, referred to the piano as one of 'my "rare" instrument collection', thus alluding to the subjective component in its value to him (and, by extension, to society).<sup>36</sup> His decision not to dispose of CD 318 after he

had exhausted its possibilities as a musical instrument also indicates an attachment beyond its mere utility.

### *Context*

At the commencement of this period the Steinway piano was being repaired after its accident in order to return it to working condition, and it was therefore firmly ensconced in the regimen of Currency. No impingement of other regimens is evident. However, Gould's affirmation of its 'rare' status hints at a growing wider context. In view of the stringent specifications for the disposition of the instrument after his death (see Section 9.1.4, following), it can be speculated that after its abandonment, but still during his lifetime, the piano was already becoming culturally marked as an item of Gould memorabilia. Thus the context of the musical utensil predisposed to continuity was moderated by a more 'museological' one of intrinsic and collectable value.

### *Dissonances*

There is no evidence of dissonance in the treatment of the piano, or of inconsistency in the approach to treatment. It is treated as a valued instrument in the regimen of Currency, and later makes the transition unopposed to a state of treasured disuse.

### 9.1.4 Third Period: Purchase by the National Library of Canada

#### History

After Glenn Gould's death in 1982 his estate offered the Steinway instrument for sale only to a purchaser who could meet certain very stringent conditions. These conditions bear very strongly upon the way the instrument would be regarded in the future and are therefore quoted here in full:

The Purchaser shall store and maintain the Piano in such manner as to preserve, in so far as is reasonably possible, and for as long a time as is reasonably possible, the unique qualities of the existing action and mechanism of the Piano and, in furtherance of this objective, the Purchaser shall:

- i) consult on at least one occasion within one year of the date hereof with a person designated by the Vendors respecting the maintenance and tuning of the Piano;
- ii) use its best efforts to encourage the use of the Piano for recital purposes at least two (2) times and not more than six (6) times per year;
- iii) endeavour to ensure that the Piano is used by a competent pianist for practice purposes for approximately two (2) hours per week;
- iv) except for purposes of facilitating recitals contemplated in subparagraph ii) above, and for such other purposes as are contemplated in this Agreement, not remove the Piano from its place from time to time of ordinary storage;
- v) mark or accompany the Piano with a plaque or inscription approved in writing by the Vendor, in the official languages of Canada, reciting that the Piano is one formerly owned and used by the said Glenn Herbert Gould in his lifetime;
- vi) take all reasonable steps to preserve the Piano for historical and research purposes, which steps may include restricting or discontinuing the use of the Piano as contemplated under subparagraphs ii) and iii) above, or other uses or public access now contemplated under this Agreement.<sup>37</sup>

The National Library of Canada purchased the piano, with other material from Gould's estate, in 1983. No treatment work was carried out on CD 318 at this time. Geoffrey Payzant is in error when he states that the piano is being rebuilt at government expense so that 'all traces of the characteristics for which he loved it will be carefully removed'.<sup>38</sup> He is referring to the other Steinway piano, referred to earlier, which is now located in Rideau Hall. In



justifying its acquisition of the instrument, the National Library identified two areas of critical importance:

Of particular concern was that the piano, because of its specially adapted action and mechanism, be kept in active and playing order, to be available to researchers and scholars studying the technique of Glenn Gould [and] the modifications made to the action and mechanism of the piano make it a unique instrument, and thus of limited value for widespread use.<sup>39</sup>

The National Library's agreement to accede to the desire of the estate to keep the instrument in the state and condition in which Gould played it, and to use it regularly for practice and public concert, placed a heavy burden on their curatorship. It was necessary to justify to players of the instrument, critics and the concert-going public why the piano was maintained in this way.<sup>40</sup> In 1993, during a concert given by a visiting Hungarian pianist, a key failed to function and this caused questions to be raised by media critics. Following is a transcript from a radio interview between Suzanne King of the Canadian Broadcasting Corporation and Timothy Maloney of the National Library:

Suzanne King: The Glenn Gould Steinway is looking a little dowdy; chipped paint and the like on the outside. And, given the incident last week, it could use a little work inside.

Timothy Maloney then provided an explanation of why the instrument was kept in exactly the condition it possessed when Gould was using it, and how this related to the vendors' stipulations.

Suzanne King: So the Gould piano is really an artifact. But not entirely, because another part of the agreement stipulates Gould's piano must be used for performances. So the National Library does its best, having it tuned and checked before every performance. But, after all, the poor dear is aging (it's nearly 50), and with age comes a few wrinkles.<sup>41</sup>

Repairs, adjustments and tuning were the necessary support functions carried out on the piano after its acquisition. In 1983 the CCI was requested to examine the instrument, advise

on its condition and the suitability of the proposed display environment, and also to undertake minor repairs. A thermohygrograph record was made of the space in which it was proposed to display the piano, in order to assess the level of potentially harmful fluctuations of relative humidity and temperature.<sup>42</sup> Further work was undertaken in 1992 to repair the cover which had split as a result of poor support.<sup>43</sup> Tuning was carried out by H. Hoglund, an Ottawa tuner acquainted with the history of the instrument and with Glenn Gould's requirements.<sup>44</sup>

Controversy over the condition of the piano arose in late 1996 when a visiting scholar found the instrument's action changed from the specifications associated with Gould's use. The key down-weight (touch weight) appeared to be in excess of 55 gms, and the hammers had been replaced with newer ones, heavier than the originals installed when the instrument was new.<sup>45</sup> Other work, of a less contentious nature, included rebushing of keys, repair of elongated balance rail holes, cleaning and lubrication of spring slots, lubrication of knuckles and support cushions, and repinning of hammer flanges.<sup>46</sup> A reply to this critique from the custodians included a response from the technician who did the work. He stated that the original hammer felts were worn through in places and 'have been replaced with a new set, purchased from Steinway & Sons, which do indeed weight [*sic*] more than their counterparts'.<sup>47</sup> A down-weight figure of between 58 gms (in the bass) and 54 gms (in the treble) was provided, with the assertion that 'these figures fall within the parameters set by the manufacturer, and given all the variables of older action parts that can affect their values, they are remarkably accurate'.<sup>48</sup> A touch weight of 47 gms is recommended in the *Steinway Service Manual*.<sup>49</sup> The technician concludes by remarking that:

The shallow 'touch' characteristics of CD 318 have been maintained [...] even though such specifications are far from amenable to many professional pianists. On the other hand, we should not lose sight that Glenn Gould -- as a profound and in some respects representative thinker of the late twentieth century -- was far more interested in the creative act and its ability to reflect a dynamic and process-oriented conception of reality. To that end, any blind adherence to what are in fact flexible technical parameters is surely contrary to his spirit.<sup>50</sup>

The above brief record of treatment and rationale was composed as a reply to criticism.

Previous work on the instrument is not documented.

## **Analysis**

### *Actions*

In the stipulations of the vendors of Glenn Gould's estate, and in the attempts by the National Library of Canada to adhere to them, there is a structured attempt at recapturing and maintaining the state in which the piano was used. The attempt to preserve 'in so far as is reasonably possible, and for as long a time as is reasonably possible, the unique qualities of the existing action and mechanism of the Piano' indicates the values of Restitution.<sup>51</sup> Craft intervention is recognized as necessary in restoring the instrument's playing state, and maintaining that state.

As the tenure of the National Library continued, a shifting of standards is evident. The critique of 1996 noted a heavier down-weight than that apparently specified by Gould (approximately nine grams heavier than Steinway's specification) and new hammers of a heavier type.<sup>52</sup> The shallow key draught typical of Gould's tenure was maintained, although it was argued that such a set-up was 'far from amenable to many professional pianists'.<sup>53</sup> These

alterations indicate a drift away from Restitution, and towards Currency. Although other servicing, such as rebushing, lubrication and cleaning, were also performed, none of these had an impact upon the specific disposition of the instrument.

### *Rationales*

An element of positivistic thinking (as discussed in Section 5.3.2) is encountered in the belief that the previous state, i.e. the one in which the instrument was maintained in Gould's lifetime, was capable of capture. In amplifying the importance of the piano's working state, the vendors stipulate that the purchaser must 'consult on at least one occasion within one year [...] with a person designated by the Vendors respecting the maintenance and tuning of the Piano'.<sup>54</sup> Thus, a sense of continuity in the care and upkeep of the instrument would be maintained.

At the beginning of the National Library's custodianship the search for authentic experience is uppermost. The Library's rationale, adopted from the vendors' specifications, for maintaining this specific mechanical state was so that the piano would 'be available to researchers and scholars studying the technique of Glenn Gould'.<sup>55</sup> This follows the vendors' statement that the piano must be preserved 'for historical and research purposes'.<sup>56</sup> The initial motivation was clearly that of playing the instrument so as to 'step into a dimension of the cultural landscape from which the music originated', as John Watson described it.<sup>57</sup> This is an evocation of antiquity in Lowenthal's 'rooting [of] credentials in the past'.<sup>58</sup> The research element also indicates a strong additional didactic purpose.

The vendors' stipulation that the piano be used for recital purposes reflects simply the desire to publicise its associations, but the further stipulation that it be 'used by a competent pianist for practice purposes for approximately two (2) hours per week' suggests the subjective values of Currency.<sup>59</sup> This is an expression of the concept that the instrument must be used regularly in order to maintain its playing condition. The stipulation (never carried out) that a descriptive label be applied to the instrument, recalls the insecurity alluded to in Section 8.2.4, where the label on the other Steinway piano was intended to provide a tangible signifier in the absence of other, original features.<sup>60</sup>

### *Context*

Once Steinway piano CD 318 was purchased by the National Library of Canada in 1983, its context expanded immediately, and increased in complexity. The instrument was now situated in an institution with policies for the conservation of its holdings, and under the care of personnel dedicated to preservation.<sup>61</sup> Nevertheless, because it was specified that the instrument must be used, elements of its earlier context as a musical utensil were carried with it. Thus, the milieu in which Gould worked -- 'His insistence that the performer's role is properly creative, rather than recreative' -- existed alongside the museological context encompassed by preservation of status quo.<sup>62</sup> In addition, the museological context itself was divided between the conservative sentiments expressed by Karp and Barnes<sup>63</sup>, and of *Recommendations for Regulating the Access to Musical Instruments in Public Collections*, which recognize that historic musical instruments can be maintained in working condition.<sup>64</sup> Elements of the regimens of Currency, Restitution and Preservation co-exist in the expanded context of the Steinway piano.

### *Dissonances*

Dissonances arise in the concept of maintaining CD 318 in working condition, and especially in the state in which Glenn Gould used it. The direction specified by the vendors, and followed by the National Library, is fraught with conceptual difficulties. The first difficulty arises in attempting to define the specifications that are taken to characterize Gould's requirements. As Payzant remarked, perhaps Gould did not know, or was reluctant to explore, what he hoped to achieve from his 'endless, agitated tinkering with his piano'.<sup>65</sup> From the practical point of view of one who had to carry out Gould's wishes, Verne Edquist, the Toronto piano tuner, stated that 'nothing precise could really be said about the desired specifications'.<sup>66</sup> Any attempt to capture the set-up of Gould's piano could therefore be only an approximation based upon the experience and memory of the original technician. In addition, as the specifications were endlessly varied during Gould's long ownership, the specific period in the development of his relationship with the instrument which is represented in the current set-up is impossible to define. Gould was, as the Ottawa tuner remarked, 'far more interested in the creative act and its ability to reflect a dynamic and process-oriented conception of reality'.<sup>67</sup>

A second conceptual difficulty arises from the history of the instrument itself. After its repair by Steinway and Sons in 1973, Gould used the instrument for seven years before abandoning it 'because even *he* had to admit that it was beyond redemption'.<sup>68</sup> For his last recordings he used a Yamaha instrument. The Steinway was clearly out of favour with Glenn Gould some time before his death, and was apparently saved by him for sentimental rather than musical

reasons. Thus, if it was, indeed, beyond redemption, its validity as a signifier of its owner's pianistic technique is open to question.

A dissonance arises within the vendors' stipulations when they opt for preserving the unique qualities of the piano through the continuation of playing status. The impact of continued playing status upon these 'unique qualities', and the effect that the specified service visits would have, is not taken into account. For example, the work done in 1996 included rebushing of keys, repair of elongated balance rail holes, cleaning and lubrication of spring slots, lubrication of knuckles and support cushions, and repinning of hammer flanges, in addition to the work on the hammers, the felts of which were worn through.<sup>69</sup> This attitude by the vendors and new owners is in line with the thinking described in Section 2.3, where the effects of craft intervention are ignored, and physical changes are not considered as having an impact upon musical results. However, the stipulation that 'for research and preservation purposes it might become necessary to restrict or discontinue the instrument's use' indicates a tacit acceptance of the effects of continuing maintenance,<sup>70</sup> although the point at which the instrument's use is suspended would occur after its value as a research tool had already been compromised.

The effect of such equivocal thinking is reflected in the perception of an outsider, the CBC reporter Suzanne King: 'So the Gould piano is really an artifact.'<sup>71</sup> But not entirely, because another part of the agreement stipulates Gould's piano must be used for performances.'<sup>72</sup> The Steinway piano is neither solely a collected artefact, nor a working utensil, but is expected to fulfil the roles of both. The delicate conceptual balance between keeping the instrument

working, and in the condition and state in which it was used by Gould, is emphasised by the negative publicity surrounding a small lapse in performance, and the reaction to the instrument's exterior condition.<sup>73</sup>

The lack of documentation of treatment is inconsistent with the instrument's status within an institution that possesses a conservation policy, and where the Preservation regimen should prevail. However, the piano's acquisition by the Library, an institution that concentrated on written and printed material, was anomalous, and at the time of acquisition recommendations on documentation policies for working historic instruments were only just beginning to be formulated.<sup>74</sup> The absence of written descriptions of action at this period is characteristic of Currency, where sources are limited to peripheral documents such as bills of sale.

In the later phase of treatment in 1996, inconsistency arises in the espousal of the values of both Restitution and Currency. The intention to preserve the instrument in the state in which Glenn Gould used it is solidly situated in the regimen of Restitution, but this is countered by the statement that 'any blind adherence to what are in fact flexible technical parameters is surely contrary to his spirit'.<sup>75</sup> The use of new, heavier hammers, rather than the re-felting of the lighter originals, speaks of the values of Currency, where the continued maintenance of the instrument through substitution of components is routine.



### 9.1.5 Synopsis of the Three Periods

While in use by Glenn Gould, Steinway piano CD 318 was treated as a working instrument, but was valued by Gould for its unique characteristics. The instrument was not an anonymous utensil, but was the subject of some public interest, and thus had become singularized. It was kept continuously in working condition and was regularly serviced. The thrust of this work was exclusively towards continuity.

After the accidental damage, and repair work by Steinway, the piano continued to be played by Gould, until he ceased to use it in 1980. As before, it continued to be maintained as an instrument securely in the regimen of Currency, yet it was clearly treasured, and culturally marked.

Purchase by the National Library of Canada in 1983 changed the piano's status initially from Currency to Restitution. The intention to preserve the instrument in the state in which Gould used it showed a positivistic rationale, and the purpose was clearly to use the instrument for the exploration of his pianistic style. This regimen later became weakened by incursions from Currency, as the specific method of continued maintenance and repair eroded the 'authentic' aspects of the endeavour.

## 9.2 THE HART HOUSE VIOLS

### 9.2.1 Introduction

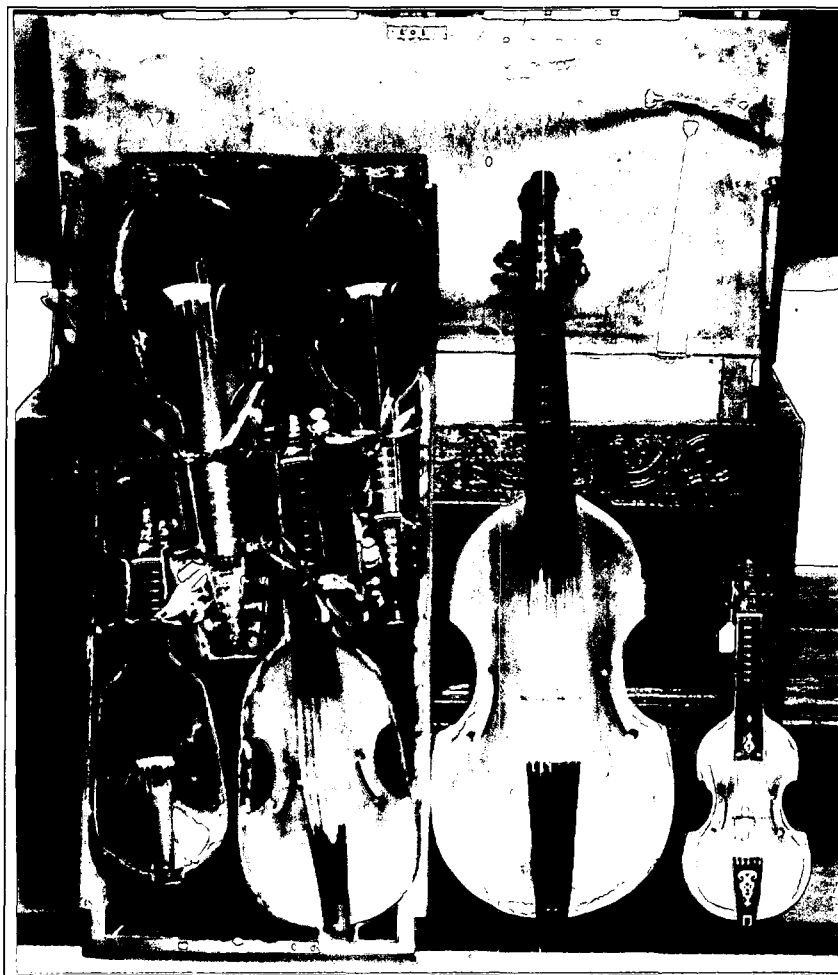


Figure 12. The Hart House viols displayed in front of the oaken dowry chest in which they are stored.

This set of six viols in a wooden chest comprises two *pardessus*’, two trebles, an alto tuned as a tenor, and a bass. They are presently the property of Hart House, University of Toronto. Hart House was established early in the present century as a recreational facility for students of the University of Toronto under a bequest from the Massey Foundation. It was named after

Hart Massey, an alumnus of the University. The instruments are considered here as an ensemble because they have followed the same path from their earliest records to the present.

A lack of specific documentation means that little can be said of the original use of the viols, beyond the obvious statement that they performed as functioning musical instruments while the music written for them was still in vogue. All must have experienced low points in their careers during the 19th century when viol music was out of fashion and its revival was still in the future.

The viols came together as a set in the 1920s, at which time they were placed in a specially fitted-out wooden chest, made of brown oak (*quercus sp.*). The chest has the carved inscription 'Margret Platts 1673' and, as it pre-dates all the instruments, its original function was probably as a dowry chest.<sup>76</sup> The lid is not original. The earliest mention of the viols is in an appraisal done by Auguste Delivet in 1925 or 1926 for Dolmetsch of Haslemere.<sup>77</sup> This appraisal misidentifies four of the six and is very sparse on details. Later appraisals by Monical, Pronger, and Remenyi agree more closely.<sup>78</sup>

The viols were inspected by Edmund H. Fellowes of St. George's Chapel, Windsor Castle, on 4 March 1929 in the presence of the Warden of Hart House, University of Toronto. The chest of viols was 'in Vancouver and was in danger of finding its way to the United States'.<sup>79</sup> It was at this point that the Massey Foundation and Vincent Massey together purchased shares in the instruments and requested that Hart House be their custodian. Once in the possession of Hart House the viols were used during the summer months by the Conservatory

of Music Quartet. Sir Ernest MacMillan was then Chairman of the Hart House Music Committee.<sup>80</sup> In 1932 the Massey Foundation sold its share of the instruments to the Arts and Letters Club of the University, while Vincent Massey sold his share to Hart House. Disagreements between the Arts and Letters Club and the Hart House Music Committee over insurance payments for the viols resulted in the purchase in 1935 of the remaining shares by Hart House through an anonymous donation.<sup>81</sup> The viols were regularly played since their acquisition in 1929, and regulations for their use were drawn up by the Music Committee in 1937.<sup>82</sup> Use of the viols reached a peak in the 1970s when Peggy Samson, a noted Toronto viol player and 'Canada's senior gambist',<sup>83</sup> organized a sextet to give regular concerts. In view of continuing wear and tear, a maintenance protocol for the viols was formulated.<sup>84</sup>

The last regular use of the viols in concert was in 1977. Nevertheless, efforts continued after this to allot money to maintain the instruments in playing condition<sup>85</sup> and to encourage players to use them.<sup>86</sup> In 1982 discussions on the disposal of the viols took place, resulting in an approach to the Ontario Heritage Foundation Instrument Bank.<sup>87</sup> An offer from a private source to purchase the viols or to exchange them for a Bosendorfer grand piano was received in 1982,<sup>88</sup> but this was rejected.<sup>89</sup> An approach was made to the Canada Council Instrument Bank in 1987, and was initially received with 'keen interest'.<sup>90</sup> However, after continued negotiation this initial enthusiasm was reversed in early 1992, and plans for the transfer of the viols failed to mature.

In September of 1992 members of CIMCIM, a committee of ICOM, examined the instruments, and this further exposure resulted in a request to the CCI for examination and

consultation.<sup>91</sup> In February of 1993 the CCI produced a report outlining three possible scenarios: the present storage in the chest in the Warden's Office, use of the viols in concert, or display in Hart House.<sup>92</sup> Some efforts were made during 1993 by Hart House to locate a museum willing to house the viols under suitable conditions but nothing came of these enquiries.<sup>93</sup>

From the above introduction, three distinctly documented periods in the history of the Hart House viols can be identified:

- Assembly of the six instruments in the chest c. 1925
- Use between 1929 and 1977
- Period of indecision

These periods are documented in detail below, and activity within them is analysed.

### **9.2.2 First Period: Assembly of the Chest of Viols**

#### **History**

The assembly of this set of six instruments as a chest of viols at some time around 1925 or 1926 represents a marked transformation in their meaning. The act of bringing them together as an entity makes two very clear statements: firstly, that the instruments are now valued for their collective identity (as a chest of viols), and secondly that they are now one coherent unit

which is intended to represent a past practice. Because the instruments were acquired from diverse sources, and have varied provenances both historically and geographically, in order to create the coherent entity of a chest of viols it was necessary to ‘normalize’ individual members of the set. Although no written sources exist from this period of their history, examination reveals that treatment of four of the instruments took place at the time they were assembled as a set and installed in the chest.<sup>94</sup> The label of G. Saint-George appears inside two of the viols, the Bertrand *pardessus* and the anonymous English alto, indicating that he was the craftsman responsible for the present state of these two instruments of the set. The anonymous English alto appears to have been made originally as a five-string instrument, and then later converted to six strings and tuned down as a tenor, to fill as best as possible the tenor gap in the set.<sup>95</sup> The treble attributed to Bergonzzi and the bass attributed to Tielke also bear signs of extensive repair and alteration. Only the Guersan *pardessus* and the anonymous Flemish treble are in an essentially original state.<sup>96</sup> Questions have been raised concerning the authenticity of the Flemish treble; its unusual construction and immaculate condition have been cited as evidence for a 19th century origin as a conscious imitation of an earlier type.<sup>97</sup> All instruments bear the number 1231 stamped beside their tail pegs.

## Analysis

### *Actions*

The values of Restitution prevail at this period in the instruments’ history; the treatments apparently carried out by G. Saint-George in ‘normalizing’ two viols of the set, and the indications of repairs carried out on the other instruments at the same time, indicate the intent

‘to represent a known earlier state’.<sup>98</sup> The possibility of the Flemish treble being a 19th-century reproduction adds weight to the concept of recreating an earlier state by craft intervention, in this case by supplementing a lacking original with a reproduction. The probable conversion at this time of the five-string alto viol into a six-string tenor, in order to fill the gap in the ‘chest’, indicates the extent to which the concept of the set was allowed to over-ride the integrity of individual instruments. The completeness and detail of the instruments’ restoration as a ‘chest of viols’ is signified by their enclosure in a genuine 17th century oak chest, adapted for the purpose. All this evidence of an attempt to capture an earlier state indicates solid adherence to the values of Restitution.

### *Rationales*

The rationale for assembling these viols as a set, and of using them in performance, is seen in the attempt to reconstitute a past ambience. This is evidence of the search for authentic experience, as encountered in Lowenthal’s slightly narrower definition of antiquity -- the intention ‘to root credentials in the past’.<sup>99</sup> The viols are used as the medium in an historical transaction.

### *Context*

Assembly of the instruments in the chest as a set coincides with the activities of Arnold Dolmetsch, whom Donington cites as being one of the founders of the early music revival.<sup>100</sup> The historical viol literature was given great attention by Dolmetsch and his followers through the opening years of the 20th century, and eventually became formalized in the Haslemere Festival, inaugurated in 1924<sup>101</sup>, and the Dolmetsch Foundation of 1929<sup>102</sup>. An

equally influential publication, Canon Francis Galpin's *Old English Instruments of Music*, had appeared in 1910. The viols themselves had passed through Arnold Dolmetsch's hands around the year 1925.<sup>103</sup> At this period, museum conservation was just emerging in the works of such museum personnel as Scott<sup>104</sup> and Plenderleith,<sup>105</sup> and its influence upon musical practices was negligible.

### *Dissonances*

There is no evidence of inconsistency in the approach to the treatment of the viols during the time they were brought together as a set. The work done upon them is consistent with the approaches to restoration of the period. Historic instruments were used because, as Marco Pallis remarks, modern reproductions were not available in sufficient quantities to satisfy demand.<sup>106</sup>

### **9.2.3 Use Between 1929 and 1977**

#### **History**

There are few sources from the earlier part of this period concerning either the preservation or the conditions of use of the viols, except the statement in the Hart House records that the Conservatory of Music Quartet used the instruments under the Chairmanship of Sir Ernest MacMillan.<sup>107</sup> There is no extant documentary evidence to suggest that the viols were regarded in any other way than as functioning musical instruments. Their maintenance can be



assumed to be the same as that afforded newly-made instruments used under similar circumstances.

A transfer agreement between the Massey Foundation and Hart House, drawn up in 1932, empowers the latter 'to permit and so far as they may be able to direct the use of the said viols [...] to stimulate and encourage the appreciation of music in Hart House or elsewhere'.<sup>108</sup> The two following sub-clauses in this same agreement deal with the eventualities surrounding sale or other disposal, while clause 2 places trusteeship with the Warden of Hart House. Thus, the use of the viols is assured, as is their potential as a realisable asset, but directions to their care and preservation as an entity different in essence from other usable artifacts are not evident.

After transfer of title to the chest of viols to Hart House in 1932 the instruments entered a regulated phase, and their combined functionality and museum-piece status begin to be represented in sources. Regulations controlling use of the viols written by the Music Committee in 1937, state that:

The instruments are museum pieces and should be treated as such: at the same time they are not merely objets d'art and they should be available for use under certain conditions.<sup>109</sup>

The regulations control the use of the instruments, and lay down the conditions under which they will be made available, but do not go into any detail on care and maintenance. Although accorded the status of art objects, it is evident that while viol music remained popular enough to keep this set regularly in use, their status as functioning musical instruments was uppermost. This essential functionality is visible in an inventory of a shallow removable tray

within the chest which contained *inter alia* a bass viol fingerboard, spare bridges, nuts and tailpieces, miscellaneous pieces of wood, clamps, planes, a chisel, a file, and a hammer.<sup>110</sup>

In 1974 a maintenance protocol for the viols was written.<sup>111</sup> The thrust of this document is towards preventive conservation in the context of use, and guidelines are provided for maintenance of stable relative humidity (RH) within certain set limits. The author points out that sudden fluctuations of RH are more damaging than slower seasonal changes, and provides advice for countering the former. The document describes daily care, including light cleaning and inspection, and professional care, where at least once a year fuller treatment, including polishing, retouching, tightening of pegs and soundpost should be undertaken. This is the first occurrence in the records of a detailed protocol of care and maintenance for the instruments. In 1975 dimensions were taken by D. Warnock of Princeton, Massachusetts, for the preparation of a set of drawings of the instruments. No copies of the finished drawings were ever made available to Hart House.<sup>112</sup>

## **Analysis**

### *Actions*

The need expressed in the transfer document ‘to stimulate and encourage the appreciation of music’ underlines the prime function of the instruments.<sup>113</sup> Presence of tools within the chest is evidence of an on-going programme of maintenance, while the spare parts in the same place, particularly the fingerboard, indicate a propensity for substitution of components of the instruments.

The regulations written after transfer of title to Hart House provide only conditions for loan, and it is not until 1974 that specific directions on care appear. Even at this time, the emphasis is still upon maintaining working condition. Polishing, retouching and tightening of pegs are all maintenance actions taken as a result of routine attrition due to playing.

### *Rationales*

By 1937 a source states explicitly that the instruments are to be regarded as museum pieces and objets d'art; it is stated that they should be treated as such, but still with the proviso that they be available for use.<sup>114</sup> The appreciation of their museum status and their continuing function as representative documents of historical practice are reflections of authenticity, and place rationales securely in the Restitution regimen. The intent to prepare technical drawings indicates a didactic interest in the materials of fabrication and instrument-making technology, but the absence of a finished product leaves this impetus stillborn.

### *Context*

During the period of active use between the acquisition of the viols in 1929 and the cessation of regular playing in 1977, the context of the care and preservation of historic material changed profoundly, but the application of conservative measures to musical instruments appears only sparingly at the close of the period. At the beginning of the period, the ethos was dominated by explicit function. Museum conservation was in its infancy, and was not to have an influence upon historic musical instruments until the 1970s, as signified by such publications as those of Karp and Barnes in 1979 and 1980 respectively.<sup>115</sup> Practice in historic musical instrument use for the latter part of this period is more accurately expressed

by the statement in 1967 that 'restoration of a deteriorated instrument is commendable',<sup>116</sup> together with the remarks from the Day of Studies at Cremona concerning 'the ever-increasing necessity of restoring old instruments'.<sup>117</sup> The 1971 colloquium in Antwerp, where caution in the treatment of historic instruments is discussed, is peripheral and addressed solely to the museum community.<sup>118</sup> It is important to note that because Hart House is not administered as a museum, access to this material and the regimen that it reflects, is not a foregone conclusion.

### *Dissonances*

The concept that the viols are considered as both objets d'art in a museum context and working musical instruments would suggest an equivocal position in present-day terms. However, in 1937 such sentiments reflected orthodox opinion, and the expression of the instruments through playing was perfectly consistent with their museum status. Nevertheless, continuing craft attention to ensure good playing condition implies the kind of on-going intervention alluded to in the maintenance document of 1974.<sup>119</sup> The difference between actions taken to return instruments to a previous state, and those aimed at maintenance of them in that state, becomes blurred. Restitution is clearly expressed in 'the ever-increasing necessity of restoring old instruments',<sup>120</sup> but their continued maintenance, with the necessary removal and replacement of worn parts, has more in common with Currency. Return to a previous state for the purposes of playing music implies continued maintenance in that state, and thus counsels upon the desirability of restoration are also counsels on the desirability of continued use. Playing maintenance becomes a process of minor restoration endlessly repeated. Restitution blends into Currency.

### 9.2.4 Third Period: A Period of Indecision

#### History

After 1977 the viols were not used regularly. This is accounted for by three interconnected factors: the decreasing popularity of viol music in Toronto at that time, a lack of competent and willing players, and the deteriorating condition of the instruments.<sup>121</sup> A plea was made by viola-da-gamba player Peggy Samson, who had been the most recent force behind regular playing of the viols until her retirement in 1977, that a plan for maintenance be established and monies set aside for the instruments. She stated that ‘the lead-lined [*sic*] case [...] is ideal for preserving their wooden health’ but that repairs and maintenance would be necessary.<sup>122</sup> In 1979 a maintenance budget of \$250.00 per annum was established by the Music Committee, although it was apparently never drawn upon.<sup>123</sup>

The viols remained undisturbed in their chest in the Hart House Warden’s office until early 1982 when sale of the instruments to the Government of Ontario was discussed by the University.<sup>124</sup> This stimulated further response from Peggy Samson: ‘I have written this letter because I am Canada’s senior gambist & am seriously concerned to contemplate an act so likely to look sad in future years.’<sup>125</sup> In response, the Warden wondered ‘whether Hart House is in a position to exercise adequate stewardship [...] Would the viols be more generally accessible if they, for instance, were part of the provincial instrument bank rather than stored in my office?’<sup>126</sup> Suggestions for workshops and concerts focusing on the instruments were proposed,<sup>127</sup> and exchange for a Bosendorfer grand piano was suggested. Regarding the latter,

the Warden was adamant that Hart House would not engage in what were perceived to be clandestine activities.<sup>128</sup>

An approach was made in 1987 to the Canada Council Instrument Bank which showed keen interest in acquiring the viols. Publicity material states that 'the Instrument Bank intends to acquire quality instruments and to lend them to outstanding Canadian musicians'.<sup>129</sup>

Negotiations resulted in the production of a set of guidelines for the transfer.<sup>130</sup> Maintenance of the instruments is detailed specifically:

1. Ownership:

Hart House to retain title, in the first instance (See #6 below).

2. Maintenance:

The Canada Council to assume all costs of maintenance and administration. A firm of craftsmen acceptable to the Music Committee will perform maintenance.

3. Storage:

Instruments are to be stored, while not on loan to musicians, in an environmentally suitable location.

4. Policy Governing Loans to Musicians:

Only Canadian Citizens or Landed Immigrants to be eligible. Prime consideration to be given to musicians whose principal professed activity is, or is expected to be, public performance. The duration of loans are to be no more than five years, with renewal at the option of the Canada Council.

5. Attribution:

Hart House to be acknowledged on concert programmes.

6. Review:

A review of this arrangement (#1 to #5) to be undertaken after an initial period of five years, in which consideration would be given to the transferral of ownership to the Canada Council.

This offer was eventually rejected by the Canada Council, and the Warden of Hart House was informed that the Council had 'no interest in pursuing the matter'.<sup>131</sup> The viols remained in storage in their chest in the Warden's office.

In September of 1992 a request to examine the viols by members of CIMCIM was made to the Hart House Music Committee. This visit coincided with the ICOM Triennial Conference in Québec City and was attended by eminent organologists and museum curators from significant collections worldwide.<sup>132</sup> This, in turn, spurred further interest in the future disposition of the instruments, and a report on their condition and suggestions for their future was requested of the CCI.<sup>133</sup> The report, submitted in February 1993, outlined three possible recourses: the present storage in the chest in the Warden's Office, where ideal conservation conditions obtained at the price of anonymity; use of the viols in concert, which would allow their public expression at the expense of their safety; or display in Hart House, which would give them public exposure as visual objects, but not compromise their condition. Further efforts were made during 1993 by Hart House to locate a museum willing to house the viols under suitable conditions. Nothing came of these enquiries and the viols remained passively conserved in storage.<sup>134</sup>

## **Analysis**

### *Actions*

The focus throughout most of this period remains directly upon playability, even though the viols were not in continuous use. It was apparent in 1977 that the deteriorating condition of the viols would prevent their further use, even had there been both a demand for concerts, and players for the instruments. Although their 'wooden health' was assured while in storage, provisions for their continuing use were considered necessary, and a budget was set aside for the purpose.

Negotiations with the instrument banks of both the Provincial and Federal governments were intended to ensure that the instruments would be lent to practising musicians.<sup>135</sup> On-going maintenance would be essential. The guidelines concerning transferral of the viols to the Canada Council state that 'a firm of craftsmen acceptable to the Music Committee will perform maintenance'.<sup>136</sup> Thus, there is an emphasis on maintenance for the purposes of continued playing.

It was only after the visit by the delegates of CIMCIM in 1992 that museum considerations were entertained. Of the three suggested courses of action provided in the report of 1993, two argued for preservation, and one supported the continuing state of Restitution, with the understanding that this would compromise the safety of the instruments.

### *Rationales*

This last period of the case study is significant for its lack of the subjective elements that characterise the rationales of Restitution. Discussion is dominated by the transactions considered necessary to ensure continued playing. The suggestions for workshops and concerts with the instruments, and the offers of them to both the Provincial and Federal government instrument banks, emphasise unidirectional thinking along the lines of function. There is no documented evidence that the viols were ever considered a resource in museological terms, and that their value might reside in non-playing status. Storage in the Warden's office was considered simply to be inadequate stewardship, rather than measured preservation.<sup>137</sup>



### *Context*

During the period of benign preservation while in storage the context of the viols changed very little from that which obtained during their active status before 1977. In 1983 museum guidelines were published internationally recognizing that playing of historic instruments was a continuing practice.<sup>138</sup> It was argued that those instruments already restored to playing condition had already been compromised, and could thus continue to be maintained under strictly controlled conditions.<sup>139</sup>

As stated earlier, the fact that Hart House is not a museum suggests that the values associated with the regimen of Preservation would not impinge upon the values adhered to, and the protocols followed. The report of 1993 was arguably the first introduction of alternate regimens to the custodians of the viols. The possibility of preservation in their present state was presented, together with display or continued use, should the demand arise. The lack of action on the recommendations of this report is indicative of the continued equivocal status of the instruments; further use would require enthusiasm from the music community, display would require infrastructure, on-going care and financial resources, while storage as an increasingly valuable asset would require no further action.

### *Dissonances*

The concept voiced in 1937 that the viols were considered both as museum pieces and as working musical instruments, becomes more dissonant in this last period. A burgeoning industry in reproduction musical instruments negates the necessity of using originals, while

strictures intending to limit and control the playing of historic instruments in the museum context continue to be published.

The 'Guidelines Concerning Transferral to Canada Council' recognize that continued maintenance will be necessary if the viols are to be kept in playing condition. Under a regimen of continued use and craft intervention, Restitution continues to show a tendency to lapse into Currency.

### **9.2.5 Synopsis of the Three Periods**

In the first period, the assembly of the Hart House viols as a 'chest' in the mid-1920s was clearly an act of restoration; establishing the instruments within a conjectured previous state, and keeping them in playing condition, was done in order to 'root credentials in the past'.<sup>140</sup>

Playing state continued in the following period with consciousness of the museum status of the viols being raised. Some dissonance is noted in the potential for the values of Restitution to be confused with those of Currency.

During the period of indecision over the disposition of the viols, their playing status continued to be emphasised. Planned transfer to the musical instrument banks of the Province of Ontario or the Canada Council would have projected the viols into an environment where the values of Currency prevailed. There is no evidence that their passive preservation in storage was ever regarded as desirable.

### 9.3 JOHANNES ZUMPE FORTEPIANO

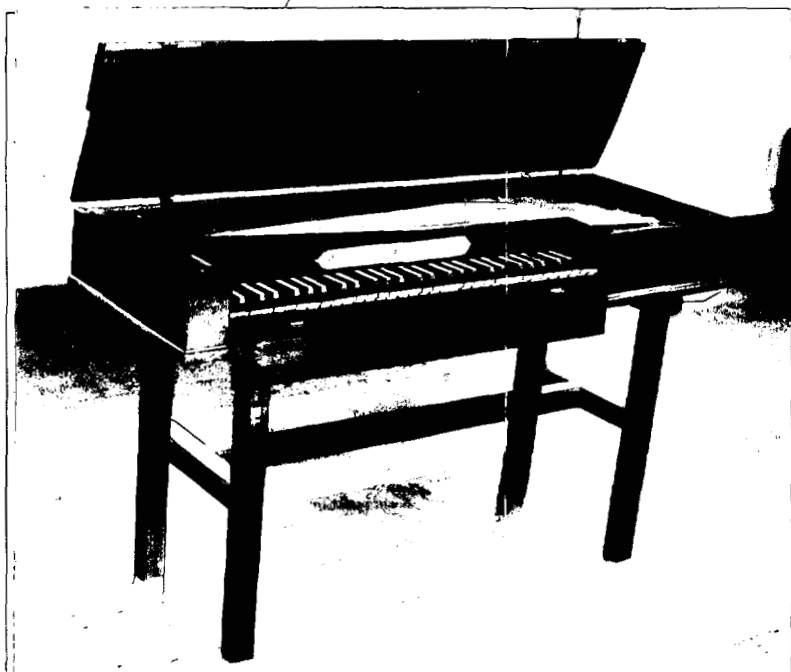


Figure 13. The Johannes Zumpe fortepiano after restoration in 1988.

#### 9.3.1 Introduction

This instrument was built in London in 1766 by Johannes Zumpe<sup>141</sup> who had emigrated from Hanover and had worked under Burkat Schudi. In 1761 he set up his workshop in Princess Street, Hanover Square.<sup>142</sup> It has been suggested that this instrument is the earliest extant English square piano.<sup>143</sup> A second example of 1766 was sold by Christie's of London on 12 June 1979,<sup>144</sup> and is now in the collection of Colonial Williamsburg in Virginia.<sup>145</sup> Other examples of Zumpe fortepianos from around this period are instruments of 1767 in the Metropolitan Museum of Art in New York, and in the Victoria and Albert Museum. There are two instruments from the year 1768, one in the Royal Ontario Museum,<sup>146</sup> and the other in the Russell Collection, Edinburgh. The Russell Collection also has one of 1769.<sup>147</sup>

E.W. Naylor, the owner of the instrument in 1924, states that it was in the possession of the Bean family of Scarborough since at least 1790.<sup>148</sup> As Bean Gardens, the family holding, was only established around 1790, it has been suggested that the instrument might have been purchased second hand.<sup>149</sup> No documentation of the instrument itself is forthcoming until the appearance in 1919 of a letter in *The Times* in which H. Martin describes the instrument.<sup>150</sup>

In 1949 negotiations were under way for the sale of the fortepiano to Rosamund Harding, a collector, but a price could not be agreed upon and the instrument remained with the Naylor family.<sup>151</sup> The fortepiano was transported to Victoria, British Columbia by Bernard Naylor in the 1960s and remained there until the 1980s. In 1984 Bernard Naylor approached Derek Brewer, the Master of Emmanuel College, with a view to bequeathing the instrument to the College. It was initially suggested that the instrument reside in the Music School of the University, rather than the College Library, in view of the better facilities in the former for display.<sup>152</sup> Naylor argued that the ambience of the Library was more conducive to the instrument's historic status. Agreement was reached on this issue and the fortepiano was received by Emmanuel College in January 1985.

The instrument was examined in February 1985 and a report on its condition prepared.<sup>153</sup> The report strongly recommended restoration of the piano to playing condition. This was agreed upon by the College authorities, and restoration was undertaken by the author of the condition report between April 1986 and April 1988.<sup>154</sup> In April 1988 a concert was given on the piano, the instrument being maintained in playing condition for a short period

thereafter.<sup>155</sup> The appearance of a crack in the new soundboard installed during the restoration necessitated more treatment in 1993.<sup>156</sup> After further repairs the instrument was not returned to Emmanuel College but placed in storage in a building of the Music Faculty, although some parts of the instrument, removed during restoration, were retained in the Prints Room of the former location.

Three periods of treatment of the Zumpe fortepiano can be identified from the foregoing:

- Possession by the Bean and Naylor families
- Acquisition by Emmanuel College and Restoration
- Supplementary Restoration

These periods are documented in detail below, and activity within them is analysed.

### **9.3.2 First Period: Possession by the Bean and Naylor Families**

#### **History**

In a letter to *The Morning Post* of 1924, E.W. Naylor identified the Zumpe fortepiano as being a family possession for a considerable time, having been ‘bought when new by my maternal ancestor, the horticulturalist Bean, who kept a garden with a concert hall at Scarborough in the mid-Eighteenth Century’.<sup>157</sup> From observations made during treatment between 1985 to 1988 it was conjectured that the instrument had undergone restoration early

in the 19th century.<sup>158</sup> It was observed that the hammers had had a second layer of leather glued over the original, and that the instrument had been restrung with open-wound, brass core strings in the lower register, and plain iron in only one gauge for the upper.<sup>159</sup> It was also considered possible that some of the pilots which activate the hammers were repositioned during this same 'modernization'. The following distortions were also ascribed to the 19th century restoration:

The increased tension of these strings had pulled the wrestplank out from its mortise in the frame at the bass end and twisted it along its length, which in turn had distorted the soundboard badly and unseated it from the liner for several centimetres in the back right-hand corner. Moreover the bridge had parted from the soundboard over more than half of its length, and the whole case was noticeably twisted, the front right-hand corner being pulled up in the all-too-familiar way.<sup>160</sup>

Although an earlier treatment is conjectured, it is not possible to determine over what period of time the distortion described here actually took place. In the first extant reference to the condition of the piano, a letter by H. Martin to *The Times* in March 1919, the following is noted:

The piano is practically as sound and perfect as when made, and is now tuned to high concert pitch [...] The scale is G to F, five octaves, less top G. Does the reader know a piano as old and in such perfect condition?<sup>161</sup>

The reference to 'perfect condition' suggests that the damage described above had not yet compromised the playing quality of the piano; the instrument was apparently in working condition even though tuned to a very high pitch. The term 'high concert pitch' is not defined, but in England the French *diapason normal* of  $A_4=439$  had been adopted by the Philharmonic Society in 1896, under the consultation of Alfred Hipkins.<sup>162</sup> The above reference suggests that the piano was tuned even higher than this.

Correspondence regarding the possible purchase of the piano from the Naylor family in 1948 does not provide any information on its condition,<sup>163</sup> and it is not until negotiations for its transfer to Emmanuel College in the 1980s were under way that the condition of the instrument is again mentioned. A letter from Bernard Naylor to Derek Brewer, the Master of Emmanuel College, written on 9 May 1984, states that ‘our piano is in very bad state of repair, but I have been assured that it is *all there* & could be restored’.<sup>164</sup> There is no reference to who had assessed the instrument’s condition at this time. Brewer replied that, ‘I was fascinated to hear about it and would certainly like to see the instrument brought up to good condition if possible’.<sup>165</sup> He assumed that ‘restoration will cost a considerable amount, for example, £500’.<sup>166</sup> In a later letter to Richard Maunder, who subsequently restored the piano, Naylor again raises the subject of restoration:

We had a bit of a party when the instrument was 200 years old & we poured a little champagne into it, which no doubt accounts for the fact that there is no sign of recent woodworm! [...] I have meant to have the piano restored ever since it came to my brother and me in 1934 but, like all other members of my father’s maternal family, never did.<sup>167</sup>

## **Analysis**

### *Actions*

Addition of a second layer of leather glued over the original on the hammers, and a restringing with wires of different composition and gauge from those originally installed, indicates updating or improvement characteristic of Currency.<sup>168</sup> Continuity of active service is ensured by substituting material of original specifications with new material. It was also

### *Context*

If the modernization was indeed done in the 19th century, this action could have pre-dated the arising consciousness of the necessity to preserve tangible material attributes, as articulated by such mid- to late-19th century writers as Ruskin and Morris.<sup>176</sup> Currency was the norm, and Restitution, as a consciously articulated goal of return to a previous state, still lay in the future. The heightened consciousness of the material value of architectural elements and works of art only came to be considered for such functional objects as musical instruments much later.

As outlined in the Introduction to this work, the early part of the 20th century saw a growing interest in the study and use of early musical instruments. This is evident in such sources as Canon Galpin's *Old English Instruments of Music*, published in 1910, the pioneering work of Arnold Dolmetsch, and the presence of such collections as those of Cummings, Donaldson, Taphouse, and Watson.<sup>177</sup> In this context, working condition of the Zumpe fortepiano would have been considered the norm.

### *Dissonances*

The term 'restoration' is used on two occasions in this period, but there is no indication that the distinction between returning the instrument to a previous state, and up-dating or improving it, is understood or appreciated. Similarly, 'brought up to good condition' indicates no specific direction the work might take.<sup>178</sup> Nevertheless, this unclear understanding of the distinction between 'restoration' and simple maintenance is not inconsistent with general knowledge outside the fields of museum collections and historic



musical instrument studies. In fact, it is in keeping with the concept of the ‘silent artisan’ (outlined in Section 1.5) where there is a lack of awareness of the technical aspects of a musical instrument’s treatment.

### **9.3.3 Section Period: Acquisition by Emmanuel College and Restoration**

#### **History**

As soon as the fortepiano was in the possession of Emmanuel College, action upon its condition began to be considered. The following problems were identified in a report of February 1985<sup>179</sup>:

It is, fortunately, in essentially very sound condition, although the action is badly out of regulation, there are some broken strings, and the wrest-plank has become detached from the frame, which has caused the soundboard to lift and warp, and in turn the bridge to become detached. There is a very little (old) woodworm in the soundboard and bridge, but it is not at all serious, and there is no sign of recent infestation. The lid is slightly warped, and its underside has unfortunately had the original polish stripped and replaced with modern varnish.<sup>180</sup>

In discussing restoration the author of the report raises the option of preservation of the instrument in its current state, or of a return to playing state:

There are in my view just two possible courses of action for the College. The first is to preserve the instrument exactly in its present state, with no attempt at repair or restoration; the second is to restore it to playing condition. Because the piano is of such unique historical importance, it is absolutely vital that nothing be done that might destroy any information it could possibly yield, either now or in the future, about its construction and musical capabilities. On the face of it, this overriding consideration suggests that the former might be the correct course of action [...] If nothing is done, however, the instrument will gradually deteriorate, for regular maintenance is essential to keep any form of machine in good condition. In any case, it is above all a musical instrument, and its musical qualities cannot be assessed at all unless it is restored to playing condition.<sup>181</sup>

The report further states that:

It is indefensible *not* to restore a historic instrument to playing condition unless there is a grave risk that such restoration might seriously damage the instrument. There is no such risk with the Zumpe square piano, since it is in fundamentally good condition.<sup>182</sup>

Restoration to playing condition was therefore recommended. The following details paraphrase the proposed treatment. The action would be removed for a thorough overhaul, which would involve replacing the leather hinging of the hammers, although if possible leather hammer covers would be retained. The instrument would be complete re-strung; even though most of the original strings appeared to be in place, many were broken and crudely knotted together.<sup>183</sup> Also, the strings were considered too brittle and would probably break when tuned to 18th century pitch. The soundboard and wrestplank would be removed, and the wrestplank would either be reattached or removed and replaced. On further examination the soundboard might be found to be repairable, otherwise it would be removed and replaced.<sup>184</sup> The report also stipulates that whoever undertakes the restoration work must 'provide the College with the fullest possible report, preferably illustrated by photographs, of every stage of the work', and that 'every alteration of the present state of the instrument must be potentially reversible, as well as fully documented'.<sup>185</sup>

The instrument was dismantled for restoration and during examination the following features of Zumpe's construction that indicated his experimentation were noted, as well as changes that he may not have made.<sup>186</sup> All keys had two scribed lines across them to locate the position of the pilots, instead of one, as would have been the case if the best position for the pilots was known beforehand. The damper spring layout showed evidence of a change of plan; whalebone (baleen) springs may have been used originally, to be replaced by springs of

wire. The soundboard proved to have been made in three plys, the top and bottom ones running transversely and the middle one at right angles to these, instead of the conventional single thickness of wood with one grain direction.<sup>187</sup>

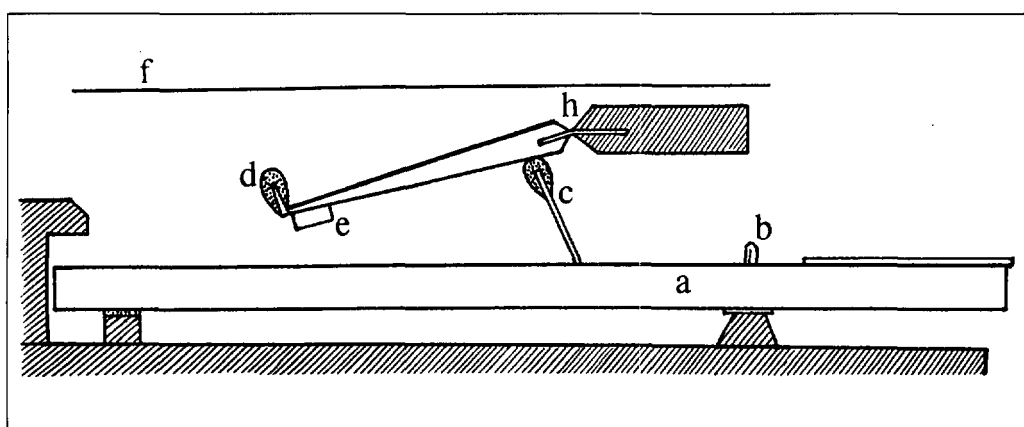


Figure 14. Diagram of English pianoforte action showing (a) key, (b) pivot pin, (c) pilot, (d) hammer, (e) hammer weight, (f) string, and (h) hinge.

Treatment was undertaken between April 1986 and April 1988. The following details of the dismantlement process are extracted from the restoration report<sup>188</sup>:

- Hammers were removed and numbered underneath in pencil. This entailed cutting the parchment hinges that attached them to the hammer frame.
- The fabric-covered batten under the keyfronts was removed, and all old cloths stripped off.
- The outer (later) leather covers of the hammers were taken off. 'Unfortunately the condition of the inner leather covers was not such as to make it possible to retain them, for they were rather dry and hard.'<sup>189</sup> New leather hammer covers were applied and new parchment hinges attached.

- The wood blocks glued under the hinges were replaced, and the old (but not original) hinges were discarded.
- Repairs to the keys included drilling and plugging of some balance pin holes, and redrilling.
- New leather buttons were attached to the pilots to replace the originals which had disintegrated. The highest pilot and the lowest two were brought forward.
- The strings were removed and their gauges and materials of fabrication recorded.
- Wrist-pins were removed and cleaned, and drilled with 1mm diameter transverse holes.
- The bridge, the wrist plank, the batten along edge of the soundboard, and the surrounding mouldings were removed by softening the glue by dampening, and by removing hardware. The three plies of the soundboard were separated from each other.
- All removed parts were labelled and placed in storage in Emmanuel College.

The following details of the reassembly and adjustment of the instrument are extracted from the restoration report:

- A new wrist-plank was made and set in place with glue and an additional six 1½" (38mm) woodscrews.
- A new soundboard was made and fitted and the surrounding mouldings replaced. 'No attempt was made to reproduce the original 3-ply soundboard, for the technical problems of manufacture would have been formidable, and in any case, to judge from

the distorted state of the original soundboard, Zumpe's experiment had not been a success.<sup>190</sup>

- 'A few' hitchpins were replaced.
- The heads of hammers Nos. 2-6, 10-12, 15 and 20 were removed and reglued onto the shanks nearer to their hinges.
- The damper pivot wire was replaced with a larger diameter 1/16" (1.7mm) brass rod, and the holes through which it passed drilled out to match.
- The damper leathers were replaced.
- New hinges were fitted to the front flap and main lid.
- A new trestle stand was made to replace a missing, but not original, one.

The string gauge was ascertained by stringing the region around middle C and deciding by ear. A gauge of 0.0173" (0.44mm) (material not specified) 'sounded about right'.<sup>191</sup> During the stringing experiments the case began twisting; when half strung with the 0.0173" (0.44mm) wire the corner-to-corner distortion reached 1/8". A maximum twist of 5/32", arrived at by calculation, was considered acceptable at a pitch of  $A_4=415\text{Hz}$ . The new stringing, the specification for which was derived from this experimentation, was very similar to that used on the 1768 Zumpe in the Russell Collection.<sup>192</sup> However, the new stringing was apparently still placing too much strain on the instrument:

About two months after fitting all the strings, the twist as measured at the front right-hand corner had increased to about 7/32", the tuning was still very unstable, the distortion in the case was forcing the action-frame out of shape so that several hammers were binding, and a small crack appeared in the new soundboard.<sup>193</sup>

In order to correct the distortion and stabilize the tuning, an aluminium 'T' section 1½ x 1½" (38 x 38mm) was attached transversely underneath the case with 24 countersunk woodscrews.<sup>194</sup>

The tone quality of the restored Zumpe fortepiano was described in terms of the 'singing quality of the treble [...] and the resonant bass [...] remarkable in such a small instrument'.<sup>195</sup>

The author states of this report, though, that 'it is difficult to describe the tone of an instrument'.<sup>196</sup> The instrument was played once in a public recital, on Monday 25 April 1988, featuring Emma Kirkby (soprano) and Jan Smaczny (fortepiano).<sup>197</sup> The performance was not recorded.

A report on the treatment of the instrument was published in 1990 in *The Galpin Society Journal*.<sup>198</sup> This publication drew criticism from keyboard restorer John Barnes, whose correspondence was published in the next issue of the journal. Barnes quotes The Galpin Society's editorial policy, and comments upon it:

'For *anything* published in the *GSJ* both the author and editor must be sure that all possible steps have been taken to avoid attracting subsequent adverse criticism' [...] It therefore seems to me unfortunate that the article [...] describes restorational procedures which are highly controversial and which many would view as undesirable.<sup>199</sup>

Barnes is complimentary of the investigative aspects of the treatment, but regarding the musical results of the treatment, he states that:

Nearly everyone now takes the view that if an old instrument does not have its original soundboard (unless, of course, it is old enough to have a worthy eighteenth century replacement) it is not worth listening to and therefore not worth restoring. Consequently the actual removal of an existing original soundboard for replacement by a new one is, or ought to be, completely taboo.<sup>200</sup>

In response to this, Maunder asks that, if an instrument is in sound enough condition, is it 'right to condemn it to eternal silence, so that its musical qualities can never be assessed?'.<sup>201</sup> He further argues that the original soundboard 'was in too poor a condition for reinstatement to be possible if the instrument was to be made playable'.<sup>202</sup>

## Analysis

### *Actions*

The extent of the proposed treatment work clearly indicates intervention to return the instrument to playable condition. Thorough overhaul of the action, complete re-stringing, and removal of the soundboard and wrestplank are all restoration procedures intended to promote function.<sup>203</sup> The action clearly has an historical basis, as shown by the detailed examination of Zumpe's workmanship, and the resultant theories concerning the original layout of the instrument, and its stringing.<sup>204</sup> All this action places the proposed action in the regimen of Restitution. There is clearly the intention to 'root credentials in the past'.<sup>205</sup>

The recommendation that 'the fullest possible report [be kept] preferably illustrated by photographs, of every stage of the work' places the action in the more recent phase of Restitution where record-keeping is emphasised.<sup>206</sup> Further evidence of this is seen in the publication of the work in *The Galpin Society Journal*, although it should be noted that the published work is much more concerned with the technical and historical discoveries made during the process, than with documentation of the treatment itself.

The actual treatment of the Zumpe fortepiano shows features of Restitution in replacement of cloths and leathers matching original specifications, re-stringing with wire of appropriate type and gauge, use of whalebone (baleen) for springs in place of the later metal wire, and replacement of the wrestplank with one modelled closely on the original. On the other hand, features of Currency appear in the changes made to the instrument that do not reflect the practices of the maker. The heads of ten of the hammers were removed and reglued onto the shanks in a position nearer to their hinges, the damper pivot wire was replaced with a larger diameter brass rod, and the holes through which it passed were drilled out to match. The wrest pins were drilled transversely to accept the strings, instead of relying upon friction as was the original practice. Correction of the corner-to-corner distortion was effected by attaching an aluminium 'T' section transversely underneath the case with screws.<sup>207</sup> All these actions represent changes to the known original state of the instrument.

The greatest change to the fortepiano's state was the provision of a new soundboard. The speed of propagation of vibration through wood, and thus the acoustic spectrum resulting from excitation, is moderated by grain direction. In softwoods, vibration travels as much as five times as quickly along the grain as it does across, whereas composite panels like plywood have velocities in both directions similar to those measured in solid wood across the grain.<sup>208</sup> Thus, replacement of the isotropic three-ply original soundboard with a conventional, single thickness anisotropic one, alters the acoustic properties profoundly. This action is characteristic of Currency, where upgrading and improvement are evident, while musical characteristics resulting from changes in the materials of fabrication and the original disposition are not considered.



### *Rationales*

The belief in the possibility of returning the instrument to a previous state by craft intervention reflects the elements of positivistic thinking outlined in Section 4.3.2. A scientific flavour is given to this endeavour by two references to ‘assessment’ of the instrument’s musical qualities. The rationale for restoration is clearly rooted in the search for authentic experience as defined in Section 4.3.2; it is seen in the desire to explore the historical sound of the instrument. The statement that ‘it is indefensible *not* to restore a historic instrument to playing condition unless there is a grave risk’ underlines this stance clearly.<sup>209</sup> It is further argued that the fortepiano ‘is above all a musical instrument, and its musical qualities cannot be assessed at all unless it is restored to playing condition’.<sup>210</sup> The antithesis is to ‘condemn it to eternal silence’.<sup>211</sup> The word ‘condemn’ carries connotations of sentence and punishment, and ‘eternal’ is equally evocative.

The statement that ‘the instrument will gradually deteriorate, for regular maintenance is essential to keep any form of machine in good condition’ is characteristic of Currency, but appears in this context as a justification to restore.<sup>212</sup> Only two courses of action are suggested: ‘to preserve the instrument exactly in its present state, with no attempt at repair or restoration’ or full restoration to playing condition.<sup>213</sup> A treatment protocol between these two extremes -- a more conservative approach aimed simply at stabilization and conservation -- is not entertained, although the references to ‘potentially reversible’ processes, to ‘any information it could possibly yield’, and to documentation of treatment all indicate a familiarity with the values of the Preservation regimen.<sup>214</sup>

### *Context*

During the 1980s, when the Zumpe fortepiano was brought into playing state, the radical change of context in the treatment of historic keyboard instruments had already taken place. The sources referred to in Section 9.2.4 include the colloquium held at the Museum Vleeshuis, Antwerp, and the wider dissemination of the conservative viewpoint through the publications of Karp and Barnes, which had appeared in *Early Music* in 1979 and 1980 respectively.<sup>215</sup> The appearance of the latter two papers in *Early Music* is significant because it indicates a widening of the museum conservation agenda into the area of scholarly musicological studies. Previously, *Early Music* had published 'The restoration of the Vaudry' in 1976, a paper which presented technical knowledge derived from the complete disassembly and rebuilding of an historic instrument.<sup>216</sup> Thus, the papers by Karp and Barnes represent a departure from the reportage of treatment procedures hitherto considered orthodox.

An international colloquium in Venice that resulted in the publication of *Per una carta Europea del restauro* had taken place in 1985. Grant O'Brien, Curator of the Russell Collection of Historic Keyboard Instruments in Edinburgh, had argued that the aim of restorers should be to 're-think our approach to the restoration of musical instruments, and to provide a heritage of unrestored instruments for study by future generations'.<sup>217</sup> This sentiment is, in fact, reflected in the proposal for treatment of the Zumpe fortepiano: 'Because the piano is of such unique historical importance, it is absolutely vital that nothing be done that might destroy any information it could possibly yield, either now or in the future, about its construction and musical capabilities.'<sup>218</sup>

Publication of the treatment in *The Galpin Society Journal* resulted in criticism of technical aspects, but of more significance here, it stimulated criticism of the Society's editorial policy. In his correspondence, Barnes quotes editorial policy to the effect that 'both the author and editor must be sure that all possible steps have been taken to avoid attracting subsequent adverse criticism'.<sup>219</sup> This correspondence is significant because of its effort to modify the views of the journal to better reflect the current orthodoxy.<sup>220</sup> *The Galpin Society Journal* had earlier published papers outlining organological discoveries occasioned during the dismantlement of historic instruments.<sup>221</sup> The issue of the replaced soundboard of the Zumpe is most noteworthy in encapsulating the contemporary restoration orthodoxy that 'if an old instrument does not have its original soundboard [...] it is not worth listening to and therefore not worth restoring'.<sup>222</sup>

### *Dissonances*

Conflicts within the historic instrument restoration field are manifest in the correspondence by Barnes to *The Galpin Society Journal*. The extent of the work done is considered excessively invasive when placed against the unique quality and historic significance of the instrument.

The insertion of the new soundboard, together with other improvements to the instrument's first functioning state, are dissonant with the intention of assessing its original musical capabilities. The values of Restitution, in attempting to recapture the historic sound, exist here in parallel with the values of Currency, where updating and improvement of an earlier disposition prevail.

The concept of reversibility ‘sets conservators apart from skilled restorers or repairers’ and is ‘one of the factors which establish our unique intent to project our work into the distant future’.<sup>223</sup> The term reversibility has been shown to be problematic even within the conservation profession, and an interpretation closer to removability is warranted (see Section 4.4.1). Although the term ‘reversibility’ is used in the proposal for treatment of the Zumpe fortepiano, certain actual measures taken do not allow for this, even in its wider interpretation as ‘removability’.<sup>224</sup> For example, the delamination of the soundboard into its three components precluded reassembly. Thus, there is a dissonance between the use of a term specifically embraced within the regimen of Preservation, and the actual treatment of the instrument, which embraces values of both Currency and Restitution.

Dissonance is also evident in the aim of restoring the fortepiano to working condition so that its music qualities could be assessed, and the lack of systematically recorded results. The instrument’s performance while in playable condition was not recorded acoustically, and the only assessment of its musical capabilities is in the reported ‘singing quality of the treble [...] and the resonant bass’.<sup>225</sup>

### **9.3.4 Third Period: Supplementary Treatment**

#### **History**

The Zumpe fortepiano was played privately for chamber music for a short period of time after its debut concert, but further problems of stability were experienced:

The sound board cracked again, and more work had to be done to sort this out. It became plain that the frame would not support the strain of tuning the instrument to a useful pitch [...] I had the impression there was a basic design fault.<sup>226</sup>

The damage manifested itself in the appearance of a large crack and two smaller cracks in the soundboard, which occasioned further work. The following details of condition and treatment are extracted from the supplementary report of 1993.<sup>227</sup> The cracking was ascribed to the excessively low relative humidity in the Library of Emmanuel College where the piano had been displayed since its return from treatment in 1988.<sup>228</sup> No hygrothermograph records from this period are extant for the Library, and it is unknown whether environmental monitoring was undertaken.

Repair of the cracks necessitated removing the soundboard from the instrument, and to this end the damper springs, dampers, strings and wrest-pins were removed, and the mouldings around the edges of the soundboard unglued. The small cracks in the soundboard were then repaired with glue and small shims of soundboard wood, and small blocks were glued underneath to strengthen them. The larger crack, which had caused the front 1" (25mm) to detach completely, was repaired with glue. The soundboard was then conditioned for several weeks at a relative humidity of approximately 50% until its dimensions had stabilized. It was then reinstalled and the instrument rough tuned to  $A_4=415\text{Hz}$ . After a few weeks another crack developed at the front, alongside the previously repaired one:

Since the relative humidity had been kept constant this crack could not have been the result of further shrinkage, but must have been caused by the string tension's having twisted the wrest plank [...] At this point the only alternatives were to abandon the restoration completely, or to repair the new crack but reduce the tension of the strings.<sup>229</sup>

The soundboard was repaired *in situ* by removing the front portion and replacing it with a new piece, secured in place by a strip of wood underneath. The instrument was tuned to  $A_4=390\text{Hz}$ . Monitoring over the next few months revealed no major new cracks, so the instrument was restrung so as to restore the pitch to  $A_4=415\text{Hz}$  at the new maximum tension. It was emphasised that:

The soundboard is only just strong enough to bear the tension of the strings, and that it has been kept at a relative humidity of about 50% for the last year. If the relative humidity were allowed to drop below, say, 45%, or if the pitch were raised above  $A=415\text{Hz}$ , the soundboard would almost certainly break again. No further major repair will be possible: it would have to be completely renewed, as I did in my 1986-88 restoration.<sup>230</sup>

In the correspondence which took place before the Zumpe fortepiano was donated to Emmanuel College, it had been suggested that it be housed in the Faculty of Music where better facilities existed for its display.<sup>231</sup> The donor, Bernard Naylor, had replied at that time that ‘it is of first importance to us that the piano should repose within the College. Could it not be counted among those “objects [in the Library] which give the rooms a pleasantly furnished and variegated appearance”?’<sup>232</sup>

Nevertheless, the stipulation that an inability to maintain a stable relative humidity of 50% in the Library would cause further cracking of the soundboard, resulted in the move of the Zumpe fortepiano to storage in the Cudworth Room of the Faculty of Music. The strings were de-tensioned, and the instrument was covered with plastic dust-sheeting.

## Analysis

### *Actions*

Playing state was considered uppermost in this period; the actions during the first part of this period are primarily those related to Currency. The repairs made to the soundboard, the lowering of pitch, and the attention to relative humidity are all evidence of efforts to continue function through maintenance. Further treatment is conducted in the manner of a rescue attempt; abandoning the restoration completely is mooted as an alternative to further treatment.<sup>233</sup>

Deposition of the instrument into a storage area, de-tensioning of the strings, and enclosing it under a dust cover are all actions of passive preservation. The fortepiano is left to be preserved by inaction, rather than by an active protocol of conservation treatment and inspection.

### *Rationales*

Emphasis continues to be upon the playing state, although there are no references to assessment of musical quality. The conclusion that action had to be taken because 'there was a basic design fault' indicates the rationales of the regimen of Currency because attempts to correct the fault imply a desire to improve.<sup>234</sup>

### *Context*

The context remains essentially the same as that described during the previous treatment period.

### *Dissonances*

The continued problems of cracking of the replacement soundboard, which constitute the major thrust of the supplementary restoration, are taken to indicate an original design fault. A new 3-ply soundboard had not been reproduced from the original because ‘to judge from the distorted state of the original soundboard, Zumpe’s experiment had not been a success’.<sup>235</sup> The tight restrictions on pitch and relative humidity recommended after the latest phase of repair indicate a fragility not present in the instrument before treatment. In 1919 the fortepiano was judged to be ‘practically as sound and perfect as when made’.<sup>236</sup> If this report is correct, the distortion in the original soundboard does not appear to have been a result of ‘Zumpe’s experiment’ but of later improper treatment, perhaps related to a higher string tension a hundred or more years after the instrument’s manufacture. It is therefore inconsistent to apply continued restorative measures to the cracked soundboard, which deviates markedly from one of the original specifications, and then to cite the insolubility of the problem as a fault of the original design. Plywood is a great deal stronger in tension than single-ply wood, and it is not inconceivable that Johannes Zumpe knew that.<sup>237</sup> Dissonance between action and rationale is evident.



### 9.3.5 Synopsis of the Three Periods

In the first period the fortepiano was regarded as an historical object, and was treasured as a family heirloom. Changes made to its first functioning state indicate the values of Currency, which is consistent with thinking in the period in which the work was done.

The second period is characterized by treatment that encompasses elements of both Currency and Restitution; restoration is conducted, but maintenance is also evident. Attempts are made to reinstate an earlier disposition for the purposes of assessing historical sound, but this is compromised by the inclusion of major replacement parts with non-original characteristics. Systematic assessment of the musical qualities of the instrument is not demonstrated.

In the third period musical function continues to be emphasised, but the instability and fragility of the instrument prevent its use. It passes from a regimen primarily dominated by the values of Currency, although with elements of Restitution, to one of passive preservation.

### NOTES

1. Kallmann and Potvin, p. 542.
2. Steinway and Sons, archives and database, New York.
3. Remenyi, M., letter to H. Kallmann (undated), National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
4. Friedrich, p. 10.

5. Liner notes to *J.S. Bach: Two- and Three-part Inventions*, Columbia recording ML 6022, quoted in Payzant, *Glenn Gould*, p. 106.
6. Payzant, *Glenn Gould*, pp. 107-108.
7. Steinway and Sons, archives and database, New York.
8. Friedrich, p. 11.
9. National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
10. Edquist, V., letter to National Library of Canada (undated), National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
11. Remenyi, M., letter to H. Kallmann (undated), National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
12. Records Department, T. Eaton Company, transcript of communication to author by telephone, 15 April 1995.
13. Cook, G., letter to H. Kallmann, 22 August 1983, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
14. Cott, p. 47.
15. *ibid.*
16. Edquist had been introduced to Gould by George Cook, the tuner employed by the T. Eaton Company. Edquist, Verne, letter to National Library of Canada, 15 March 1983, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
17. Payzant, *Glenn Gould*, p. 105.
18. *ibid.*
19. Edquist, V., letter to National Library of Canada, 15 March 1983, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
20. Steinway and Sons, archives and database, New York.
21. Payzant, *Glenn Gould*, p. 107.
22. Gould, G., letter to David Rubin, Steinway and Sons, 14 February 1973, National Library of Canada, file number 168-3-G9-4 - Collections - G. Gould - piano.

23. Cook, G., letter to H. Kallmann, 22 August 1983, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
24. Kopytoff, p. 73.
25. Cott, p. 47.
26. Lowenthal, p. 52.
27. Payzant, *Glenn Gould*, p. 107.
28. Friedrich, p. 11.
29. *ibid.*
30. Gould, G., letter to David Rubin, Steinway and Sons, 14 February 1973, National Library of Canada, file number 168-3-G9-4 - Collections - G. Gould - piano.
31. *ibid.*
32. Payzant, *Glenn Gould*, p. 146.
33. Friedrich, p. 11.
34. Payzant, *Glenn Gould*, p. 109.
35. *ibid.*, p. 107.
36. Gould, G., letter to David Rubin, Steinway and Sons, 14 February 1973, National Library of Canada, file number 168-3-G9-4 - Collections - G. Gould - piano.
37. Purchase Agreement, National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
38. Payzant, *Glenn Gould*, p. 146.
39. Anon., 'Background Notes', National Library of Canada, file number 168-3-G9-4, Collections - Gould, Glenn - Piano.
40. Maloney, Timothy, transcript of verbal communication to author, 14 April 1995.
41. *The Arts Report*, Canadian Broadcasting Corporation, reference number 18422-1, 3 May 1993.
42. Barclay, R.L., 'Glenn Gould Piano', Canadian Conservation Institute, 1983, National Library of Canada, file number 168-3-G9-6, Collections - G. Gould - Piano - Maintenance - Vol. 1.

43. Barclay, R.L., memorandum to Joyce Banks, National Library, Canadian Conservation Institute, 7 April 1992. National Library file number 168-3-G9-6, Collections - G. Gould - Piano - Maintenance - Vol. 1.
44. Hoglund, H., letter to National Library of Canada (undated), National Library of Canada file number 168-3-G9-7, Collections - G. Gould - Piano - Current Use.
45. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 23.
46. *ibid.* p. 24.
47. *ibid.*
48. *ibid.*
49. Matthais, p. 90.
50. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 24.
51. National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
52. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 23.
53. *ibid.*
54. National Library of Canada, Ottawa, file number 168-3-G9-4.
55. Anon., 'Background Notes', National Library of Canada, file number 168-3-G9-4, Collections - Gould, Glenn - Piano.
56. National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
57. Watson, pp. 74-75.
58. Lowenthal, p. 52.
59. *ibid.*
60. *ibid.*
61. Conservation Policy document, undated, National Library of Canada, Ottawa.
62. Kallmann and Potvin, p. 542, col. 3.
63. Karp, 'Restoration'; and Barnes, 'Evidence'.
64. ICOM/CIMCIM, 1983.

65. Payzant, *Glenn Gould*, p. 109.
66. Edquist, V., letter to National Library of Canada, 15 March 1983, National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.
67. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 24.
68. Payzant, *Glenn Gould*, p. 146.
69. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 24.
70. Purchase Agreement, National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
71. The term 'artifact' is used in this case to mean specifically 'museum object'.
72. *The Arts Report*, Canadian Broadcasting Corporation, reference number 18422-1, 3 May 1993.
73. *ibid.*
74. For example, the CIMCIM 'Draft Recommendations' of 1982.
75. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 24.
76. Such chests are described in MacQuoid, pp. 160-170, and illustrated on pp. 167 and 168. Harrison illustrates the type on pp. 40 and 41.
77. Anon., *Description of the Viols*, 23 May 1975, Hart House records, University of Toronto, p. 1.
78. Monical, William, letter to Hart House Music Committee, 2 February 1974, records of Hart House, University of Toronto; Pronger, Brian, report to Hart House Music Committee, 27 February 1974, records of Hart House, University of Toronto; and Remenyi House of Music, 'Insurance Appraisal A478', 9 December 1982, records of Hart House, University of Toronto.
79. Anon., *Description of the Viols*, 23 May 1975, Hart House records, University of Toronto, p. 1.
80. *ibid.*
81. *ibid.*
82. Hart House Music Committee, *Regulations for the Use of the Hart House Viols*, article 94 (7), 11 February 1937, records of Hart House, University of Toronto.

83. Samson, Peggy, letter to Hart House Music Committee, 7 January 1982, Hart House records, University of Toronto.
84. Pronger, Brian, *On Maintaining the Collection of Viols*, 27 February 1974, Hart House records, University of Toronto.
85. Samson, Peggy, letter to Richard Alway, 23 December 1978, Hart House records, University of Toronto.
86. Rappen, Ulrich, letter to Richard Alway, 8 April 1982, Hart House records, University of Toronto.
87. Alway, Richard, letter to Ontario Heritage Foundation Instrument Bank, 26 January 1982, Hart House records, University of Toronto.
88. Rappen, Ulrich, letter to Richard Alway, 8 April 1982, Hart House records, University of Toronto.
89. Nashman, A., letter to Ulrich Rappen, 17 March 1983, Hart House records, University of Toronto.
90. Anon, *Guidelines Concerning Transferral to the Canada Council*, 2 October 1991, Hart House records, University of Toronto.
91. McGee, Timothy, letter to Canadian Conservation Institute, 12 October 1992, records of Canadian Conservation Institute.
92. Barclay, R.L., *Recommendations for the Hart House Viols*, unpublished report (Ottawa: Canadian Conservation Institute, 10 February 1983)
93. Hart House Music Committee minutes, 21 March 1995, Hart House records, University of Toronto.
94. Monical, William, letter to Hart House Music Committee, 2 February 1974, records of Hart House, University of Toronto.
95. *ibid.*
96. Barclay, R.L., *Recommendations for the Hart House Viols*, unpublished report (Ottawa: Canadian Conservation Institute, 10 February 1983)
97. Monical, William, letter to Hart House Music Committee, 2 February 1974, records of Hart House, University of Toronto.
98. IIC-CG, *Code of Ethics*, p. 17.
99. Lowenthal, p. 52.

100. Donington, 'Why', p. 42.
101. Pallis, p. 41.
102. Donington, 'Why', p. 42.
103. *Description of the Viols*, 23 May 1975, Hart House records, University of Toronto, p. 1.
104. *The Cleaning and Restoration of Museum Exhibits*
105. *The Preservation of Antiquities*
106. Pallis, p. 41.
107. Anon., *Description of the Viols*, 23 May 1975, Hart House records, University of Toronto, p. 1.
108. Anon., 'Agreement between Massey Foundation and Hart House', clause 1a, 18 May 1932, Hart House records, University of Toronto.
109. Hart House Music Committee, *Regulations for the Use of Hart House Viols*, Regulation no. 1., 11 February 1937, Hart House records, University of Toronto.
110. Barclay, R.L., *Recommendations for the Hart House Viols*, unpublished report (Ottawa: Canadian Conservation Institute, 10 February 1983), p. 4.
111. Hart House Music Committee, *On Maintaining the Collection of Viols*, 27 February 1974, Hart House records, University of Toronto.
112. Note to file (undated), Hart House records, University of Toronto.
113. Anon., 'Agreement between Massey Foundation and Hart House', clause 1a, 18 May 1932, Hart House records, University of Toronto.
114. Hart House Music Committee, *Regulations for the Use of Hart House Viols*, 11 February 1937, Hart House records, University of Toronto.
115. Karp, 'Restoration'; and Barnes, 'Evidence'.
116. Berner, et al, p. 8.
117. Moreni, p. 91.
118. *Restauratieproblemen...*
119. Pronger, Brian, *On Maintaining the Collection of Viols*, 27 February 1974, Hart House records, University of Toronto.
120. Moreni, p. 91.

121. McGee, Timothy G., letter to author, 24 March 1994.
122. Samson, Peggy, letter to Hart House Music Committee, 5 January 1979, Hart House records, University of Toronto.
123. Note to file (undated), Hart House records, University of Toronto.
124. Alway, Richard, letter to Ontario Heritage Foundation Instrument Bank, 2 October 1991, Hart House records, University of Toronto.
125. Samson, Peggy, letter to Richard Alway, 7 January 1982, Hart House records, University of Toronto.
126. Alway, Richard, letter to Hart House Music Committee, 26 January 1982, Hart House records, University of Toronto.
127. Rappen, Ulrich, letter to Richard Alway, 8 April 1982, Hart House records, University of Toronto.
128. Nasham, A., letter to Ulrich Rappen, 17 March 1983, Hart House records, University of Toronto.
129. Communiqué (undated) The Canada Council, Ottawa.
130. 'Guidelines Concerning Transferral to Canada Council', 2 October 1991, Hart House records, University of Toronto.
131. Curry, C.A., letter to Warden of Hart House, 3 March 1992, Hart House records, University of Toronto.
132. *CIMCIM Bulletin*, 12 (November 1992), p. 1.
133. Barclay, R.L., *Recommendations for the Hart House Viols*, unpublished report (Ottawa: Canadian Conservation Institute, 10 February 1993)
134. Hart House Music Committee minutes, 21 March 1995, Hart House records, University of Toronto.
135. Communiqué (undated), The Canada Council, Ottawa.
136. 'Guidelines Concerning Transferral to Canada Council', 2 October 1991, Hart House records, University of Toronto.
137. Alway, Richard, letter to Hart House Music Committee, 26 January 1982, Hart House records, University of Toronto.
138. *Recommendations for Regulating...*



139. *ibid.*

140. Lowenthal, p. 52.

141. All documentation relating to the Emmanuel College piano refers to the maker as Johannes Zumpe. Elsewhere he is known by the fuller and slightly variant name of Johann Christoph Zumpe.

142. More correctly Prince's Street.

143. Maunder, p. 77.

144. Wells, G., 'London Salerooms', *Early Music*, 7, 4 (1979), p. 524.

145. Accession number 1968-294.

146. Catalogue number 920.58 (Cselenyi, p. 64).

147. At the time of writing the two instruments (P2-JZ1768.35 and P1-JZ1767.39) were on loan to Russell Collection.

148. Naylor, E.W., letter to *Morning Post*, 1924 (no day or month).

149. Maunder, 'Square Piano', p. 78.

150. Martin, H., letter to *The Times*, No. 498, March 1919.

151. Harding and Naylor correspondence, 9 September, 14 September, and 17 September 1949, Emmanuel College Archives, Furniture, Cambridge University.

152. Brewer, Derek, letter to Bernard Naylor, 24 May 1984, Emmanuel College Archives, Furniture, Cambridge University.

153. Maunder, Richard, *Square piano by Johannes Zumpe, 1766*, unpublished report, 18 February 1984, Emmanuel College Archives, Furniture, Cambridge University.

154. Maunder, Richard, *Square piano by Johannes Zumpe, London 1766: Restoration report*, unpublished report, 6 June 1988, Emmanuel College Archives, Furniture, Cambridge University.

155. Rankin, Susan, letter to author, 30 August 1996.

156. Maunder, Richard, *Square piano by Johannes Zumpe, London 1766: Supplementary Report (February 1993)*, unpublished report, 10 February 1993, Emmanuel College Archives, Furniture, Cambridge University.

157. Naylor, E.W., letter to *The Morning Post*, 1924 (no day or month).

158. Maunder, 'The Earliest', pp. 79-82.
159. Maunder, 'The Earliest', p. 79.
160. Maunder, 'The Earliest', p. 82.
161. Martin, H., letter to *The Times*, No. 498, March 1919.
162. Quoted in Audsley, p. 636.
163. Harding and Naylor correspondence, 9 September, 14 September, and 17 September 1949, Emmanuel College Archives, Furniture, Cambridge University.
164. Naylor, Bernard, letter to Derek Brewer, 9 May 1984, Emmanuel College Archives, Furniture, University of Cambridge.
165. Brewer, Derek, letter to Bernard Naylor, 24 May 1984, Emmanuel College Archives, Furniture, University of Cambridge.
166. *ibid.*
167. Naylor, Bernard, letter to Richard Maunder, 1 April 1985, Emmanuel College Archives, Furniture, Cambridge University.
168. Maunder, 'The Earliest', p. 79.
169. Maunder, 'The Earliest', p. 80.
170. Martin, H., letter to *The Times*, No. 498, March 1919.
171. Naylor, Bernard, letter to Derek Brewer, 9 May 1984, Emmanuel College Archives, Furniture, University of Cambridge.
172. *ibid.*
173. Maunder, 'The Earliest', p. 79.
174. Naylor, E.W., letter to *The Morning Post*, 1924 (no day or month).
175. Naylor, Bernard, letter to Richard Maunder, 1 April 1985, Emmanuel College Archives, Furniture, Cambridge University.
176. See, for example, Ruskin, *Seven Lamps*, p. 161; and Morris, 'Principles'.
177. Cited in Campbell, p. 295.
178. Brewer, Derek, letter to Bernard Naylor, 24 May 1984, Emmanuel College Archives, Furniture, University of Cambridge.

179. Maunder, Richard, *Square piano by Johannes Zumpe, 1766*, unpublished report, 18 February 1984, Emmanuel College Archives, Furniture, Cambridge University.
180. Maunder, *Square piano*, p. 1.
181. Maunder, *Square piano*, pp. 1-2.
182. Maunder, *Square piano*, p. 2.
183. It is not clear what the term 'original' means in this context. Elsewhere the author argues that the instrument had been restored at some time in the 19th century, and suggests that the strings dated from that period. Also, the stringing finally arrived at after restoration differed markedly in gauge and material from that found on the instrument before restoration.
184. Maunder, *Square piano*, pp. 2-3.
185. Maunder, *Square piano*, p. 3.
186. Maunder, 'The Earliest', pp. 77-78.
187. Maunder, *Square piano*, p. 4.
188. Maunder, Richard, *Square piano by Johannes Zumpe, London 1766, Restoration report*, unpublished report, 6 June 1988, Emmanuel College Archives, Furniture, Cambridge University.
189. Maunder, *Restoration report*, p. 5.
190. Maunder, *Restoration report*, p. 4.
191. Maunder, *Restoration report*, p. 7.
192. Johannes Zumpe Square Piano, catalogue number P2-JZ1768.35.
193. Maunder, *Restoration report*, p. 7.
194. *ibid.*
195. Maunder, 'The Earliest', p. 83.
196. *ibid.*
197. Concert Programme (undated), Emmanuel College Archives, Furniture, Cambridge University.
198. Maunder, 'The Earliest', pp. 77-84.
199. Barnes, 'Galpin Society', pp. 199-200.

200. *ibid.*
201. Maunder, 'To the Editor', p. 201.
202. *ibid.*
203. Maunder, *Restoration Report*, pp. 2-3.
204. Maunder, *Restoration report*, p. 4.
205. *ibid.*
206. Maunder, *Restoration report*, p. 3.
207. Maunder, *Restoration report*, p. 4.
208. Schniewind, pp. 250-252.
209. Maunder, *Square piano*, p. 2.
210. *ibid.*
211. Maunder, 'To the Editor', p. 201.
212. Maunder, *Square piano*, p. 2.
213. *ibid.*
214. Maunder, *Square piano*, p. 3.
215. Lambrechts-Douillez; Karp, 'Restoration'; and Barnes, 'Evidence'.
216. Adlam, pp. 255-265.
217. O'Brien, 'Conservation', p. 297.
218. Maunder, *Square piano*, pp. 1-2.
219. Barnes, 'The Galpin Society', pp. 199-200.
220. Barnes, 'The Galpin Society', p. 200.
221. Bate, 'Serpent'; Farrington, 'Dissection'; Hadaway, 'Report'; Hellwig, 'Lute'; van der Meer, 'Example'; and Zadro, 'Woodwinds'.
222. Barnes, 'The Galpin Society', p. 200.
223. Appelbaum, p. 65.

224. Maunder, *Square piano*, p. 2.
225. Maunder, 'The Earliest', p. 83.
226. Rankin, Susan, letter to author, 30 August 1996.
227. Maunder, *Square piano*, p. 1.
228. *ibid.*
229. *ibid.*
230. Maunder, *Square piano*, p. 2.
231. Brewer, Derek, letter to Bernard Naylor, 24 May 1984, Emmanuel College Archives, Furniture, Cambridge University.
232. Naylor, Bernard, letter to Derek Brewer, 24 July 1984, Emmanuel College Archives, Furniture, Cambridge University.
233. Maunder, *Supplementary report*, p. 1.
234. Rankin, Susan, letter to author, 30 August 1996.
235. Maunder, *Restoration report*, p. 4.
236. Martin, H., letter to *The Times*, No. 498, March 1919.
237. Schniewind, pp. 164-165.

## CHAPTER TEN - CRITICAL ANALYSIS: PRESERVATION

This chapter focusses upon three case studies in which the values of the Preservation regimen come to overlie and replace those of Restitution. The case studies deal with a clavichord ascribed to Bohak owned by the Royal College of Music in London, a virginals by Jadra in the Pitt Rivers Museum in Oxford, and a harpsichord by Kirckman in the Benton Fletcher collection at Fenton House in London. The values of Preservation are seen in actions taken to ensure longevity and stability, and in rationales based upon the integrity of the object and the science of its conservation.

### 10.1 BOHAK CLAVICHORD

#### 10.1.1 Introduction

This case history deals with a clavichord believed to have been made by Johann Bohak of Vienna in 1794. The instrument was purchased by Anton Richter in 1831. The dating and provenance of the instrument are derived from a label on it, now no longer legible, and a certification Richter made to the effect that he had bought it in 1831 from Herr Lichtenthal, an Esterhazy official, who affirmed that it had been Joseph Haydn's property, and a further attestation from Fanny Elssler, daughter of Johann Elssler, Haydn's copyist.<sup>1</sup> On this evidence the instrument has long been associated with Haydn and is often referred to in correspondence and publicity as 'Haydn's clavichord'. In the absence of maker's identification marks, the attribution to Bohak is assisted through similarities in workshop

techniques with other instruments of secure provenance, such as the fortepiano by the same maker in the Museo Teatrale alla Scala, in Milan.<sup>2</sup> The instrument was sold by Richter's son Hans to Mrs. Chapman in 1911, a sale which was negotiated by Arthur F. Hill, the London musical instrument dealer.<sup>3</sup> The instrument had been repaired and altered some time around 1830, before it went to England. In 1911 Arthur Hill negotiated the further repair of the instrument with the London firm of Broadwood, and in 1912 he delivered the finished work to the Chapmans. The instrument was donated by the heirs of Mrs. Chapman, in her memory, to the Museum of Instruments of the Royal College of Music in May 1937.

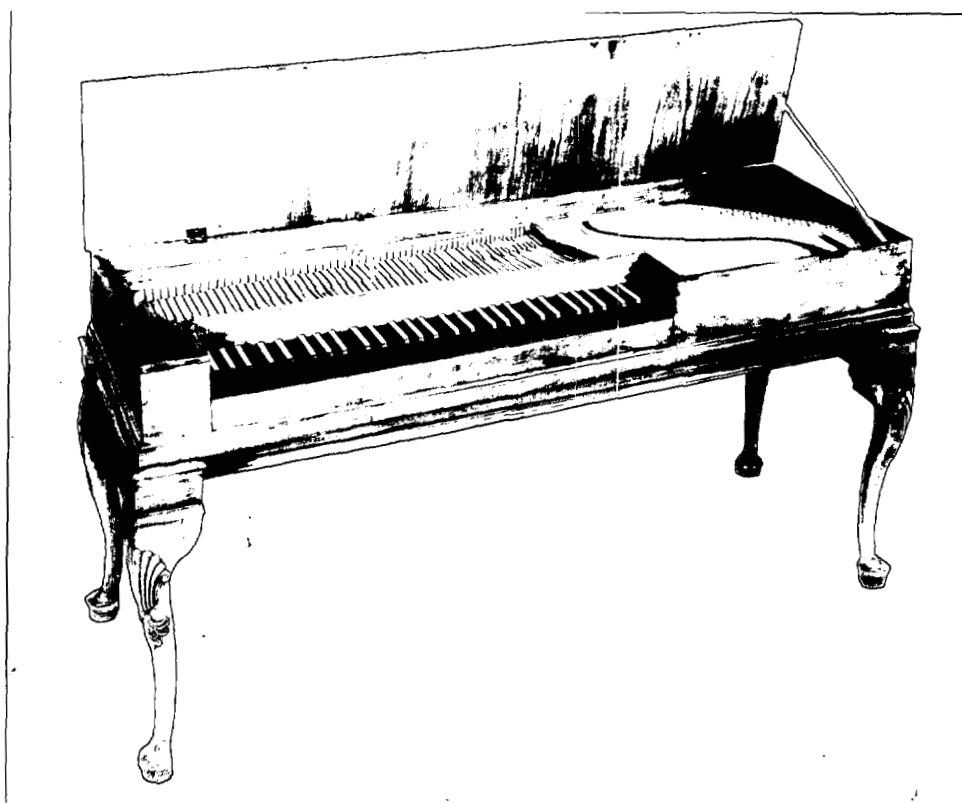


Figure 15. The Bohak Clavichord in the state in which it is displayed in the Musical Instrument Museum of the Royal College of Music.

In 1976 discussions were initiated between Elizabeth Wells, curator of the Museum of Instruments, and John Barnes, a restorer of keyboard instruments in Edinburgh. The options of restoring or making a playable copy were considered for three reasons: the clavichord presented a misleading appearance due to later accretions, it had a key importance due to its association with Joseph Haydn, and, because the collection belonged to the Royal College of Music, the working properties of the instruments were considered of interest.<sup>4</sup> The clavichord was transported to Edinburgh and stored, first at the Russell Collection, and then at the workshop of the Curator of the collection, John Barnes, while examination and research took place. Examination showed that previous restorations, especially the less recent one of the 1830s, had obliterated much evidence of original string length and bridge position, so a search was made for other extant examples of instruments by Bohak, or for others of the same provenance, which might provide the missing information on construction. Other restorers, conservators and curators were consulted concerning the desirability of restoration or copying. The search for comparable instruments proved inconclusive. Discussions continued until 1987 when the instrument was returned to the Royal College of Music having been cleaned and prepared for display and examination.

Three distinct periods of activity for analysis can be identified from the above introduction:

- Treatment in the 1830s
- Treatment by Broadwood between 1911 and 1912
- Discussions on restoration or copying from 1976 to 1987



### 10.1.2 First Period: Treatment in the 1830s

#### History

An invasive treatment of the clavichord was done in Vienna in the 1830s, probably shortly after its purchase by Anton Richter in 1831. No direct source for this work is extant, and all evidence of the date and location of the restoration, and what was done at that time, comes from an examination report produced in 1976, addenda that followed in 1984 and 1986, and a further report of 1988, all commissioned from John Barnes by the Royal College of Music.<sup>5</sup> Barnes notes that many features of the first restoration are characteristic of Viennese pianoforte manufacture of the period around 1835.

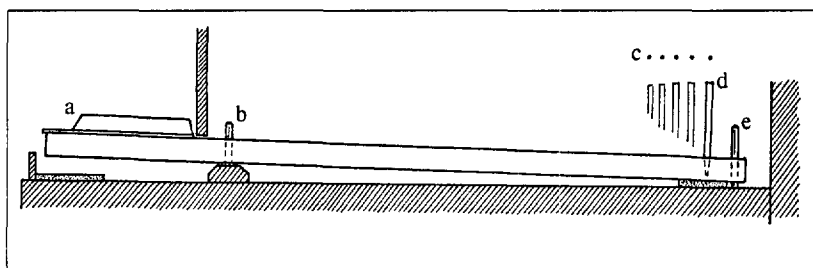


Figure 16. Diagram of clavichord mechanism showing (a) key, (b) pivot pin, (c) strings, (d) tangents, and (e) guide pin.

Changes to the instrument included the addition of a tangent rail, and raising of the height of the sides of the case to accommodate a nameboard and a new vertical keyboard cover. The hitchpin locations were changed, moving them further away from the tangents, and new hitchpins were supplied. The style of the new hitchpins was consistent with early 19th-century Viennese practice. An edge strip behind the hitchpin rail was added. New tangents (d), made from flattened pianoforte capsels, were inserted. The position of the bridge was

changed, and the original bridge replaced with a new one, double-pinned and with a flat top as in contemporary Viennese practice.<sup>6</sup> The soundboard had been removed and a new section, backed by parchment adhered with glue, attached along its front edge. Evidence for the existence of a supporting strut on the side of the wrestplank near the top wrestpins was also found.<sup>7</sup> At first it was believed that the soundbars attached below the soundboard had been removed, pared down to make them lighter, and then replaced, but later examination showed that these were not original, and were probably included during the 1830s restoration. It was suggested that, as the instrument was fitted with a laminated soundboard by the maker, reinforcing bars below it would not have been considered necessary.<sup>8</sup>

## **Analysis**

Categorization of the actions taken on the instrument depends upon whether the association with the classical composer Joseph Haydn was recognized. If such an historical association was made at that time, it can be argued that societal pressure had caused singularization to take place. The Bohak clavichord would have been regarded as ‘Haydn’s clavichord’, and would have entered the ‘symbolic inventory of society’.<sup>9</sup> If the association was only a later accretion, it can be argued that the instrument was still only a transient artifact of falling value, being modernized for current use. However, documents attesting to the association with Haydn are extant, leading to the assumption that the clavichord had become an historic instrument as defined in this work.<sup>10</sup>

### *Actions*

The argument for assigning this period of activity to the regimen of Currency lies in the nature of the work carried out, and the period in which it was done. It had been noted in examination of the instrument that many features of the first treatment were characteristic of Viennese pianoforte manufacture of the period around 1835.<sup>11</sup> The new hitchpins, the new bridge, double-pinned and with a flat top, and the re-use of flattened pianoforte action capsels as tangents, were all consistent with early 19th-century Viennese practice. Also, a tangent rail had been added, the bridge had been re-positioned according to contemporary pianoforte practice,<sup>12</sup> and the soundboard had been reinforced from below with wooden bars.<sup>13</sup>

All this work is indicative of ensuring continuity, which at this period is to be expected. There is no evident intention to revert to the musical instrument-making style of the late 18th century, but rather the intention of the work carried out is to bring the instrument into line with current practice. In its replacement and alteration of parts vital to the acoustic and tactile values of the instrument, including barring the soundboard and changing the bridge position and dimensions, such work shows no apparent regard for the integrity of either the original fabric of the instrument, or its original disposition.

### *Rationales*

Although the clavichord as a musical instrument ‘lingered into the early decades of the nineteenth century in some out-of-the-way places’,<sup>14</sup> by the time the restoration of the Bohak was undertaken around 1835 this type of instrument had effectively become extinct. The extent of the restoration performed on such an out-of-date instrument indicates that the

association with Haydn was well known, and appreciated. Thus, an intrinsic value over and above that of an otherwise obsolete musical instrument is evident; it makes more sense to restore an instrument of known pedigree and historical association, than to restore one that is merely obsolete. Nevertheless, there is no suggestion of a distinction being made between upgrading to ensure a continuing working state, and actions taken to ensure recovery and preservation of the original state. The clavichord is maintained in working condition because of the signification provided by its earlier ownership.

### *Context*

The work done in the 1830s pre-dates the arising consciousness of preservation, as articulated by such mid-19th century writers as Ruskin and Morris.<sup>15</sup> The evidence of upgrading and improvement, which was evidently done in a fortepiano workshop, indicates the values of the Currency regimen.

### *Dissonances*

There is no inconsistency in the approach to the treatment of the instrument at this period. The work done to the clavichord is consistent with normal workshop practice of the time and place of its first documented treatment.

### 10.1.3 Second Period: Treatment by Broadwood Between 1911 and 1912

#### History

The sale of the clavichord by Hans Richter in 1911 was negotiated by Arthur F. Hill, a transaction resulting in documentation that survives. Writing to Mr. Chapman, Hill states that: 'As you will see from the enclosed (which kindly return [...]) the Clavichord is a plain looking affair, but it could be put into proper repair and order, and certainly made playable.'<sup>16</sup> 'The enclosed' was evidently a photograph. A little over a month later Hill wrote to Mr. Chapman saying that he 'would really like [...] Mrs. Chapman to let us put it into better order'.<sup>17</sup> Among the things needing attention was the stand which had been built by Hans Richter's father.

The estimate submitted by Broadwood's, with Hill's as the intermediary, stated that the instrument could be 'put into satisfactory state of repair for between £7 and £8'.<sup>18</sup> The bill submitted on completion of the work was for a much greater amount than that estimated:

- Repairing Haydn's Clavichord, making and fixing Walnut stand of the period as per Messrs Morant & Co's account £15 10 6
- Repairing the action of the Haydn Clavichord and putting in playable order as per Messrs Broadwood's account £7 18 0
- To strings as invoiced £1 1 7<sup>19</sup>

The new stand was made to replace the one whose legs presented 'the appearance of inverted skittles'.<sup>20</sup> The stand of a Hass clavichord of 1767, owned by Sir Gervaise Glynn of Ewell, was to be used as a model.<sup>21</sup>

During examination in 1976, Barnes noted that a gap between the wrest plank and the case side, caused by string tension, had been filled with wood, and that the wrestplank was screwed down with a total of eight large woodscrews. In his opinion, based on traces of manufacturing technique, these screws dated from between 1860 and 1920, and thus could have been inserted by the Broadwood craftsmen. They could equally represent an interim, unrecorded, strengthening.<sup>22</sup>

## **Analysis**

### *Actions*

The functioning musical quality of the Bohak clavichord in its 1911-12 period is emphasised by such phrases as 'it could be put into proper repair and order, and certainly made playable'<sup>23</sup>, and he 'would really like [...] to let us put it into better order'.<sup>24</sup> Working condition, though, is an assumption of both Currency and Restitution, so it is necessary to divine motives in order to assign the work done at this period into one or other of these regimens. The most telling clue lies not with the instrument, but with the stand that was made by Anton Richter, and which was replaced by Broadwood's for one modelled after a Hass instrument of 1767.<sup>25</sup> This conscious attempt to re-create an earlier state, even though neither the date nor the provenance was correct, points to the values of Restitution.

It can be argued that the work done on the instrument itself should be assigned to Currency. The gap between the wrest plank and the case side, noted in 1976, had been caused by string tension.<sup>26</sup> This damage had been rectified by filling the crack with wood, and inserting eight

large woodscrews into the wrestplank. Thus, reinforcement of the structure constitutes an improvement, placing the work in the regimen of Currency. However, the necessity for such structural stabilization was more likely to have resulted from an unclear understanding of the original stringing of the clavichord, both in string material and tension. Fitting strings of the correct gauge, and tuning the instrument to an appropriate historical pitch, might have obviated the necessity for reinforcement. The strengthening measures were predicated by the over-riding goal of playability, and ignorance of its deleterious effects.

### *Rationales*

At this period of the instrument's treatment, sources identify the Bohak as 'Haydn's Clavichord'.<sup>27</sup> Having the instrument in playing condition signifies the link with Haydn, and releases the chain of connotations that characterize antiquity -- 'the attempt to elicit aesthetic experience of past phases in the use of a musical instrument by auditory and tactile means' (Section 4.3.2). This is the epitome of 'root[ing] credentials in the past'.<sup>28</sup>

### *Context*

The activity around the Bohak clavichord during this second period is indicative of the growing interest in organology. Canon Francis Galpin's book, *Old English Instruments of Music*, published in 1910, and the holdings of such collectors as Cummings, Donaldson, Taphouse, and Watson indicate the growing popularity of early instruments.<sup>29</sup> The pioneering work of Arnold Dolmetsch in the first decades of the 20th century in popularizing early music is also of key importance.

### *Dissonances*

Treatment of the clavichord indicates no dissonance between the approach taken and its rationale. The growing sense of conservation as a discipline distinct from restoration was not, at this early stage, associated with functional museum objects.

#### **10.1.4 Third Period: Discussions on Restoring or Copying from 1976 to 1987**

##### **History**

In late 1976 an approach was made by the curator of the Instrument Museum of the Royal College of Music to John Barnes, asking him to undertake a workshop investigation and produce a detailed report on the Bohak clavichord.<sup>30</sup> An informed decision could then be made as to whether to make it playable, or to remove some of the accretions of past treatments. The instrument was removed to Edinburgh for examination in his workshop. First, it was necessary to establish the position and dimensions of all original components. Barnes states that ‘I have found evidence which confirms the originality of the soundboard and indicates the position of the original bridge at 5 points. So we have the basis of a reasonably accurate restoration’.<sup>31</sup> Such evidence of the earlier state would provide key information on the string length, and the striking points of the tangents. Nevertheless, the curator replied that ‘my immediate reaction is that it does not sound as though enough of the original instrument is left for restoration to be sensible’.<sup>32</sup> It was therefore considered necessary to seek confirmation of the existence of another clavichord by Bohak, or an instrument of very similar provenance, in order for the restoration to be based upon solid



comparative evidence. To this end, several specialists in the field were consulted, but with little recorded success.<sup>33</sup> Christopher Clarke and William Dow, both private sector restorers and instrument-makers, ‘felt that we [the Museum] would do better, perhaps, to buy another clavichord rather than restore this!’<sup>34</sup> During extensive examination and partial dismantlement Barnes had begun a drawing of the instrument. Once he had derived enough information from the clavichord, he proposed to return it, untreated, to the Museum in 1978.<sup>35</sup> Meanwhile, while awaiting further information on extant Bohak instruments, or those of similar provenance that could be used as models, the clavichord was kept in Edinburgh. Thoughts upon the possibility of restoration are still evident when the curator of the Royal College of Music collection states, in 1983, that she is ‘extremely anxious to see this restoration completed and to have the instrument back in the museum’.<sup>36</sup> The justification for this is framed as follows: ‘I am sure that you will appreciate that it would be a great help to us to have the instrument, with its Haydn association, here at present, and playable [...] It would have been good if we managed it for last year’s Haydn Centenary.’<sup>37</sup>

Some doubt was expressed as to how the restored clavichord would sound, so Barnes made a recording of a copy he had made of the Bohak in its assumed original state, and a copy of an instrument by Hubert, so that a comparison could be made:

The enclosed cassette will reassure you that the Bohak will sound like a real clavichord. It is more sustained than my Hubert copy and not quite so loud, partly from heavier keys and partly from a more massive bridge. Taking out lead weights from the keys will make it a little more responsive and if you decide to have a new bridge it will make the sound a little less sustained and a little louder because the bridge will be more like the Hubert’s. A new bridge will change the string lengths a little, but none of these changes will much affect the sound, which will be much as you hear on the recording.<sup>38</sup>

The response was equivocal:

It was very kind of you to go to the trouble of making the tape, but I am sorry to say that it doesn't help me to come to a decision. Perhaps because of the recording level or the proximity of the microphone, neither instrument sounds quite like a clavichord. (I played the tape to 3 other people who felt the same).<sup>39</sup>

Meanwhile, Friedemann Hellwig, musical instrument restorer at the Germanisches Nationalmuseum in Nuremberg, had said that 'while it would be musically reasonable to restore the Bohak, and it would sound like an 18th century clavichord, it would not have its own individuality'. He 'wondered if, with its twist, it would take tension' and also felt that 'a copy would be a safer idea than [*sic*] a restoration'.<sup>40</sup> The curator expressed some of the gains to be made in restoration to working condition:

The main argument in favour of a restoration is that we have no early clavichord [in the collection of the Royal College of Music] and there is a strong temptation to make the instrument playable so that students can learn from playing it - and give 'Haydn's clavichord' a voice (good publicity for the Museum on a popular level) [...] The Bohak has already suffered so much alteration that, provided it can take tension, it would not lose (in historical terms) from a restoration.<sup>41</sup>

However, on balance the curator opted for a more conservative approach, so a quotation was requested for the removal of some of the later accretions, which would then render the instrument clean and stable, and allow access to makers and students who wished to study the interior. To this end the hitchrail would be repaired, the non-original hitchpins and tangents would be removed and substituted with new ones of original pattern, new edge mouldings would be applied, and the soundboard would be spot glued in place with paper interfaces to allow easy later removal. Strings would not be fitted. Barnes also provided a detailed account of his findings to date, including information on the original positioning of the bridge, the paring down of the soundbars, and the thinning of the soundboard.<sup>42</sup> He changes these recommendations slightly in a communication some two years later, after discovering that the soundboard was probably not originally glued in, but attached with nails.<sup>43</sup> A month later

Barnes records the results of some further examination of the instrument, and reports that, contrary to his earlier suggestions, the bars below the soundboard are probably not original, but were added during the 1830s restoration.<sup>44</sup> At the end of the year he notes that he has 'returned [his] copy to 415 [ $A_4=415\text{Hz}$ ] about a week ago and find that I prefer its sound and feel at this pitch and find it easier to play'.<sup>45</sup> Finally, he states that:

I shall be disappointed if you decide against restoration [...] I can understand the cautious people who council [*sic*] against restoration. They do so because a new bridge has to be made which is partly conjectural. The sacrifice of not having Haydn's clavichord in playing order is, however, not theirs but yours. And I don't think they can say that restoration is positively wrong. To them it doesn't seem ideal. I think that criticism would be disarmed by a successful restoration.<sup>46</sup>

Barnes also offered to lend a copy of the Bohak clavichord to the College to offset the anticlimax of having neither the original restored, nor a copy.<sup>47</sup> The copy was examined in Edinburgh by both parties, and comparisons were made with other instruments in playing condition. The Instrument Museum Advisory Committee members were also canvassed individually with the following result:

The general feeling is that there are too many unknown factors for us to be sure of a valid restoration for a museum. The same doubts would apply to a copy - it would be a hypothetical reconstruction. There is also the question of whether the original could take the tension in the long-term. There is a great temptation to go ahead nonetheless - partly because it is our only clavichord, partly because it was (probably) Haydn's and partly because the instrument is at present in such a state.<sup>48</sup>

The Bohak clavichord was 'tidied up' and returned to the Royal College of Music in 1987. Aside from the stated hypothetical qualities of a copy of the instrument, the possibility of acquiring one for the collection was rejected upon grounds of both financial constraint and lack of space.<sup>49</sup>

## Analysis

### *Actions*

The initial request made in 1976 to have the clavichord assessed for its potential return to working condition indicates that Restitution was strongly favoured by the custodians.<sup>50</sup>

Maintenance of some of the collection's keyboard instruments in working condition is described as a policy of the College.<sup>51</sup> Early in discussions the curator states that there might be insufficient evidence on the instrument for a valid restoration or copy to be made, but this is a prelude to a search for more, not an advisory to discontinue.<sup>52</sup> Pressure upon the curator to have the instrument restored is expressed in documents spread over several years.<sup>53</sup> When the final decision not to restore the instrument is made in 1987, it is done so with regret, and with the possibility of re-opening the debate should another clavichord by Bohak be found.<sup>54</sup> The restorer's viewpoint emerges when he states that he would be disappointed if the restoration did not go ahead, and argues that a successful restoration would 'disarm the critics'.<sup>55</sup>

Strong elements of didacticism are seen in the desire 'to make the instrument playable so that students can learn from playing it'.<sup>56</sup> It is explicit in the policy of the Museum of Instruments that a few keyboard instruments in the collection be functional, and that the educational activities of the College be emphasised.<sup>57</sup> Nevertheless, playing of instruments is strictly regulated to those already in working condition, and is limited by restricting playing time and controlled by selection of suitable personnel.<sup>58</sup> Regular inspections and servicing of all functioning instruments is carried out.<sup>59</sup>

### *Rationales*

A rationale based in positivistic thinking is encountered in the statement, made at the commencement of discussions, that 'I have found evidence which confirms the originality of the soundboard and indicates the position of the original bridge at 5 points. So we have the basis of a reasonably accurate restoration'.<sup>60</sup> This sentiment places the thinking behind treatment firmly in the Restitution regimen. It indicates a belief in the achievability through craft intervention of a definitive previous state. When the curator replied that there was insufficient original material left 'for restoration to be sensible', the response was to seek further data through confirmation from another clavichord by Bohak, or an instrument of very similar provenance.<sup>61</sup> The intention in this search for comparative evidence is to achieve the first functioning state of this particular instrument; the period during which it was used by Haydn. This would require removal of evidence of the two intervening states of c. 1835 and 1911-12.

Focus on authentic experience is signified by references to Haydn couched as justification for restorative treatment. Having 'the instrument, with its Haydn association, here at present, and playable' and lamenting its failure to be present at 'last year's Haydn Centenary', both indicate the significance attached to the instrument's pedigree.<sup>62</sup> However, it is very important to understand the context of these remarks. The references to giving 'Haydn's clavichord a voice', and thus providing 'good publicity for the Museum on a popular level', reflect the precarious position that the collection of the Royal College of Music was in at that time.<sup>63</sup> What is voiced here is the possibility of making one much-altered instrument

playable, thus enhancing the profile of the museum, and ensuring the preservation of the other instruments. This pressure was, in fact, resisted.<sup>64</sup>

The motive that authentic experience provides is seen in the potential for subjective sensation through musical function, coupled to the signifier of Haydn's name. This is made evident by the restorer's reference to 'the sacrifice of not having Haydn's clavichord in playing order'.<sup>65</sup> The word 'sacrifice' is very powerful in this context because it indicates the undesirability of a non-playing state.

The values of Preservation, as opposed to Restitution, appear in the discussions upon the advisability of restoration. Integrity is represented, although it is not unequivocally advocated by any source in this case study. Hellwig wonders 'if, with its twist, it would take tension'<sup>66</sup>, thus arguing technically against working condition, rather than promoting preservation. His objection, therefore, is not based upon ethics, but practicality. Both private instrument maker/restorers consulted felt that it would be better 'to buy another clavichord rather than restore this'<sup>67</sup>. The decision by the curator not to restore, and the restorer's proposals to render the instrument clean and stable, and to allow access to the interior for makers and students who wished to study it, are features associated with the value of integrity.<sup>68</sup> And the final decision not to proceed without explicit documentation from other instruments of similar provenance, also denotes integrity.

Pragmatic values are expressed by Hellwig when he argues that 'while it would be musically reasonable to restore the Bohak, and it would sound like an 18th century clavichord, it would

not have its own individuality'.<sup>69</sup> His use of the word 'individuality' in this context is important; it places his view in diametric opposition to the value of authentic experience, which promotes working condition as a signifier of aesthetic experience. Working condition, in Hellwig's view, signals a loss of the instrument's individuality, as opposed to a reinstatement of Haydn's aesthetic presence. Further aspects of pragmatic values appear in the preparation of an extensive documentation report, and the production of a 'copy' of the instrument in its conjectured original state. In order to satisfy the owner's need for a working clavichord, Barnes offers to lend his 'copy' of the instrument to the College.<sup>70</sup>

### *Context*

At the beginning of the correspondence, such key documents as Karp's 'Restoration, Conservation, Repair and Maintenance', and Barnes's own contribution to the debate, 'Does restoration destroy evidence?', which appeared in *Early Music* in 1979 and 1980 respectively,<sup>71</sup> still lie in the future. And the highly influential international colloquium that resulted in the publication of *Per una carta Europea del restauro*, coincided with the end of the correspondence and the return of the untreated instrument. Thus, at the commencement of this debate, the prevailing attitude of the College, but not of the curator, is better reflected by such publications as *Preservation and Restoration of Musical Instruments*, which counsels and advocates the restoration of museum instruments to working condition wherever possible.<sup>72</sup> Later, while the dialogue upon the wisdom of restoration of the Bohak clavichord was under way, opinion in the musical instrument community itself was undergoing a change of attitude towards a more conservative approach.

### *Dissonances*

A distinct dissonance is evident in the attempts to capture an idea of the instrument's original state, when the weight of the keys, the mass of the bridge, and the unknown disposition of the original stringband are all variables which conspire against arriving at a decision by direct comparison. The players' and auditors' individual preferences and sensitivities add a further layer of doubt; on later returning a copy of the clavichord to a pitch of  $A_4=415\text{Hz}$ , the restorer finds that 'I prefer its sound and feel at this pitch and find it easier to play'.<sup>73</sup> Aside from these variables, it proves, in fact, impossible for the auditor(s) of the recording to identify even the type of instrument: 'neither instrument sounds quite like a clavichord. (I played the tape to 3 other people who felt the same).'<sup>74</sup>

While an audio recording can only carry acoustic data, an attempt is being made to convey aesthetic values of a non-epistemic nature through this medium. There is clearly dissonance between the positivistic search for a definitive state, and the attempted arrival at that state through aesthetic, non-quantifiable values, such as touch, feel and preference. Thus, assuring that the completed restoration of the Bohak will make it 'sound like a real clavichord' provides no concrete data upon which a justification to proceed can be based.

#### **10.1.5 Synopsis of the Three Periods**

In the first period of treatment of the Bohak clavichord, in the 1830s, there is a nascent conflict of values, in that modernization of the instrument distances the memory of Haydn from the physical state of the instrument during the period when he was using it. In other



words, the work done on the instrument is solidly assigned to Currency because of its modernizing emphasis, while the aesthetic associations, with their shades of authenticity, might be assigned to Restitution.

In the second period of treatment, in 1911-12, there exists a clear indication that the Bohak clavichord is now regarded as representative of an earlier musical tradition, and that actions upon it are directed towards respect for, and recovery of, this earlier state through restoration procedures. At the same time, the technical knowledge necessary to return it to a previous state, and the articulated need to do so, are not yet fully present. The association with Haydn indicates a search for authentic experience.

The third period of activity illustrates the tension between the regimens of Restitution and Preservation, and the dissonance within the latter. The views of all parties involved in discussions upon the advisability and possibility of restoration of the instrument to its original state, illustrate the divergence of viewpoint and lack of consensus between the two regimens. Protracted discussions during a search for information show a tendency towards Restitution, but the instrument is eventually consigned to the regimen of Preservation. The dialogue between a curator employed to preserve historic instruments, and a restorer keen on returning the instrument to playing state, indicates the precarious nature of advocacy in the regimen of Preservation. The dialogue indicates the pressures that are exerted to reinstate working condition, and the regret expressed when this is disallowed.

## 10.2 JADRA VIRGINALS

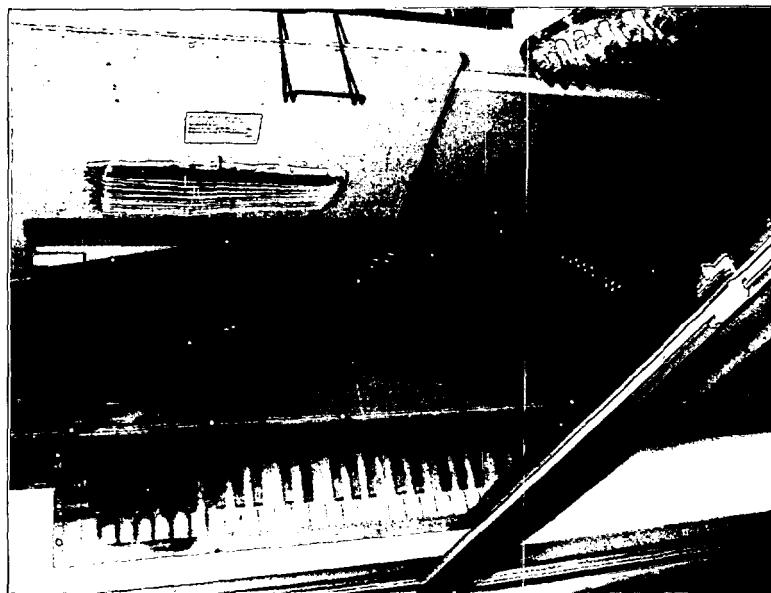


Figure 17. View of the Jadra virginals within a glass-fronted display case in the Pitt Rivers Museum. The angle from which this photograph is taken demonstrates the lack of direct accessibility that the display environment sometimes entails.

### 10.2.1 Introduction

This pentagonal virginal was made in Italy by Marco Jadra in 1552. The instrument has an effective compass from C/E<sub>4</sub> to F<sub>8</sub>, or 4½ octaves, including the short octave in the bass. The short octave was a common device on early keyboards for extending the compass downwards without adding a full complement of keys, strings, and other associated parts. The lowest keys in the bass that would normally be sharps were tuned as naturals.<sup>75</sup> Two other instruments by this maker have been identified, one of 1568 in the Victoria and Albert Museum (V&A) in London, and the other of 1565 in the Glinka Museum of the Moscow

Conservatory.<sup>76</sup> However, on stylistic grounds Denzil Wraight, a maker and restorer of keyboard instruments, assigns the V&A instrument to another maker.<sup>77</sup>

Nothing can be stated specifically concerning the care and maintenance of the instrument before the 20th century as no documentation is forthcoming prior to this period. The information that the virginal was owned by Valdrighi, which appears on a paper label in the instrument, has not been substantiated. At the beginning of the present century the instrument was owned by Canon Francis Galpin.<sup>78</sup> It is illustrated in Galpin's book *Old English Instruments of Music* where it is described as a spinet.<sup>79</sup>

After Canon Galpin's death in 1946 the instrument was purchased from his estate by Alec Hodson of Lavenham, Suffolk. Hodson put the instrument into playing order just prior to selling it to the Pitt Rivers Museum in 1948.<sup>80</sup> The firm of Robert Goble of Headington, Oxfordshire, put the instrument into playing order again in 1954.<sup>81</sup> The firm continued to maintain the instrument until 1962.<sup>82</sup> Through the latter part of the 1960s it was tuned and maintained by Andrew Douglas.<sup>83</sup> In August of 1975 Denzil Wraight approached the Pitt Rivers Museum with a proposal for a re-working of the instrument which would put it once again into playing condition, and would better respect its condition and history.<sup>84</sup> This proposal was not put into practice and the instrument remained on display, but in a non-functioning state.

From the foregoing, three distinctly documented periods of treatment of the Jadra virginals can be identified:

- Treatments by Hodson and Goble, 1948 and 1954
- Critique by Denzil Wraight in 1975
- Conservation within the Pitt Rivers Museum

Activity within these periods is analysed below.

### **10.2.2 First Period: Treatments by Hodson and Goble**

#### **History**

In April of 1947 Alec Hodson, a dealer and restorer of musical instruments in Lavenham, Suffolk, offered the Jadra virginals to the Pitt Rivers Museum in Oxford. In a letter to the curator T.K. Penniman his opinion is that:

I think the Pitt Rivers Museum an excellent place for this very early instrument. I only object to instruments going into museums when they are put in glass cases, in derelict condition, and never heard.<sup>85</sup>

The Museum records indicate that the instrument was put into playing order by Hodson, and also refer to a tuning key made by him in 1948.<sup>86</sup> Hodson refers to the working condition of the instrument, but does not state unequivocally that he has restored it: 'Should you be interested, the price of the late Cannon [*sic*] Galpin's virginal of 1551 [*sic*] will be 85 guineas, in perfect order.'<sup>87</sup> No records are extant of what measures might have been taken to put the instrument into 'perfect order'.

The firm of Robert Goble subsequently restored the Jadra between 1953 and 1954 and billed the Pitt Rivers Museum for £24 on 16 February 1954.<sup>88</sup> The Museum catalogue of musical instruments records the following: 'Put into first class playing order by Robert Goble of Headington, Feb. 1954. The old jacks, much repaired and not all contemporary (original?) are kept.'<sup>89</sup> This entry indicates that Goble had made the new set of jacks which the instrument now has. The originals were returned with the instrument and are retained by the Museum. They are of at least two different styles and bear the marks of repeated requilling.<sup>90</sup> Record keeping by Goble at the period of this treatment was 'minimal' and no documentation of the work was retained.<sup>91</sup> Further tuning and regulating is recorded in an invoice for £2, dated 7 June 1955.<sup>92</sup> Further mention is made of maintenance work on the instrument done by the firm of Goble in 1962.<sup>93</sup>

## Analysis

### *Actions*

Hodgson's references to the need to keep the instrument in working condition, while still reflecting its historical value, place actions on it securely in the regimen of Restitution. The aim is to maintain musical function while respecting historical attributes. The attentions of Robert Goble, and later Andrew Douglas, are evidence of a continuing focus on playing condition, while the manufacture and fitting of a new set of jacks indicates that the wear and tear on original components was compromising function. The state of the earlier jacks, and the fact that they appear to be made in two styles, indicates repair and replacement on a continuing basis at an earlier period.

### *Rationales*

The rationale for keeping the virginals in working condition is based in authenticity -- the exploitation of the aesthetic, historical quality of this 'very early instrument'.<sup>94</sup> It is treasured for its function as a mediator for musical experience. The rationale for function is clearly expressed by Hodson who disparages the alternative mode of existence, an imagined 'derelict condition, and never heard'.<sup>95</sup> Hearing the instrument constitutes its *raison d'être*.

### *Context*

The absence of any documentation of treatment during this period, aside from invoices for service, is indicative of the time before the rising popularity of early music, when intervention was aimed purely at function, and did not usually involve any element of exploration of historical craft technique. During the 1960s such key publications as those of Hubbard and Shortridge encouraged craft intervention on early keyboard instruments to be accompanied by the recording of findings during treatment.<sup>96</sup> At the same time, the growing discipline of museum conservation began to emphasise the keeping of treatment records as an adjunct to the information yield of the artefact. Work done on this instrument pre-dates that period.

### *Dissonances*

There is a clear inference from Hodson that some museums fail, in his estimation, to care appropriately for their holdings. His adjuration that the Pitt Rivers Museum should maintain functioning state, making this almost a condition of sale of the instrument, is an early instance of the growing philosophical division between Restitution and Preservation.

The fact that the old jacks were retained by Goble after his treatment of 1953/4, and documented as having been returned to the museum, shows respect for their historic attributes as bearers of evidence of a previous state.

### **10.2.3 Second Period: Critique by Denzil Wraight**

#### **History**

In a 1975 critique of Goble's restoration, keyboard instrument maker and restorer Denzil Wraight details the following features: the instrument is strung in iron throughout, instead of brass, it is tuned to modern pitch ( $A_4=440\text{Hz}$ ) which is as much as a fourth too high, and it has been quilled in leather.<sup>97</sup> In his own plan for treatment Wraight suggests quilling in Delrin (a modern synthetic material) as being comparable to natural quill in mechanical attributes, but much more durable. He states that the compass of the instrument should be effectively  $G_3\text{-}C_7$ , which agrees with Galpin's estimate. Wraight concludes by stating that 'enough is now known about 16th century instrument building to remove the matter of historical restoration from the sphere of opinion'.<sup>98</sup>

In Wraight's opinion the quilling material and the metal of the strings were inappropriate for an instrument of this period. Furthermore, tuning one fourth higher than the pitch for which the instrument was designed would have placed a great deal of extra tension on the frame.

No action was taken on Wraight's suggestions for revising the earlier restoration, although tuning and maintenance was continued by Andrew Douglas.<sup>99</sup> Correspondence within the Pitt Rivers Museum directly after Wraight's assessment indicates some interest in the condition of the instrument: F.F. Hill notes the 'interesting suggestion [by Wraight] that the original in all probability was likely to have been tuned as much as a fourth below modern pitch'.<sup>100</sup>

B.A.L. Cranstone, the Curator of Ethnology at the museum, later wrote to Wraight that 'your suggestion that we should put the Jadra into playing condition and arrange a recital is an interesting one'.<sup>101</sup> From this, it is apparent that the instrument was no longer in a working state at this time.

## **Analysis**

### *Actions*

Action in this phase is virtual, as no treatment following the recommendations was actually carried out. The suggested action, however, continues to be focussed upon the functioning state. The critique of the instrument's disposition is centred upon the metal used for the stringing, the string tension, and the material used for the plectra. These are all features whose nature relates to musical performance, but string tension also has a bearing upon physical stability. Wraight's suggestion that the Jadra should be put into playing condition indicates that at this time the instrument was no longer functioning.



### *Rationales*

A key feature of the exchange of ideas during this phase of the virginals' history is the very positivistic statement that 'enough is now known about 16th century instrument building to remove the matter of historical restoration from the sphere of opinion'.<sup>102</sup> The argument that the instrument should be strung throughout its compass in brass represented the then current orthodoxy, although more recent research has indicated that polygonal virginals of this period would be strung with iron wire in the lower register, changing to brass at about tenor C.<sup>103</sup> This illustrates the highly contextual nature of opinions concerning historical dispositions, and also indicates the drawbacks inherent in craft intervention, beyond restringing, that proves to be irreversible.

### *Context*

Although the problems of restoration of keyboard instruments had been discussed in 1971 at the colloquium *Restauratieproblemen van Antwerpse Klavecimbels* in Antwerp, this represented only the onset, in one location, of a rising conservation consciousness. The prevailing viewpoint from 1968 that 'where possible the restoration of a deteriorated instrument is commendable' still held sway.<sup>104</sup> The journal *Early Music*, inaugurated in 1968, periodically carried articles encouraging restoration, as did *The Galpin Society Journal*.<sup>105</sup> In 1975, the year that the critique of the Jadra's disposition was written, FoMRHI was founded. Because the original title of this organization includes the word 'restorers', this provides a key indicator of contemporary thinking. The return of historic musical instruments to playing state was still considered at that time to be a desirable aim in the museum context.

### *Dissonances*

As no action was taken upon the recommendations, no dissonances arise. Nevertheless, it is possible to see in retrospect that the proposed treatment would have required further revisiting as more knowledge on the historical disposition of the instrument became available.

## **10.2.4 Third Period: Conservation at the Pitt Rivers Museum**

### **History**

The suggested restoration to playing condition of 1975 is the last recorded thrust in this direction. In justifying the use of audio-visual equipment in musical instrument displays, the curator, Hélène La Rue, stated in her review of the Pitt Rivers Museum musical collections in 1984:

In displays of musical instruments there is always the disappointment that those objects which were designed to make music cannot be played or heard. Obviously we would not be preserving this unique collection were we to make any playable, but it does not make it very easy for the uninformed visitor if they cannot appreciate the instruments in use.<sup>106</sup>

Since 1984 the Jadra pentagonal virginals has been on display behind glass in the exhibition gallery of the Pitt Rivers Museum Annex. The display environment is controlled against fluctuations in relative humidity and temperature, routine monitoring of the environment is undertaken, and condition is checked periodically. The instrument is maintained in an untuned state with the strings straight and aligned, but under very little tension.

A detailed examination of the instrument was conducted in 1991 by Grant O'Brien, early keyboard specialist of the Russell Collection in Edinburgh. The following technical information is recorded in his report: signature and other inscriptions; scantlings (dimensions) and case materials; details of the soundboard rose; keyboard features, including compass and key dimensions; scalings, including string length and plucking point; string gauges marked on key levers; all pin and bridge dimensions; general materials of fabrication; and general decorative details. A section of notes is appended to the report, detailing features of interest in this particular instrument, and providing comparisons with another ascribed to the same maker in the V&A, London.<sup>107</sup> O'Brien does not discuss the instrument's condition.

## **Analysis**

### *Actions*

Action at this stage of the Jadra virginals' existence centres upon conservation. Scientific methods are employed to safeguard the fabric of the instrument, including enclosure to limit public access and dust, control of lighting, relative humidity and temperature, and detensioning of the strings. These are all active measures for ensuring stability and long-term preservation. It is clearly the policy of the Pitt Rivers Museum that instruments in its collection are not played.<sup>108</sup>

### *Rationales*

The Jadra virginals has been transformed from a source of tactile and auditory sensation to a source of technical and historical information. The instrument has provided source material

for definitive studies on Marco Jadra and the 16th century Venetian school of keyboard instrument makers.<sup>109</sup> Intervention, either through treatment aimed at re-establishing playing condition, or through use as a musical instrument, has been curtailed in favour of measurement, documentation, and scholarly study. The instrument is protected by policy, where preservation and restoration are clearly opposed.

### *Context*

This instrument is placed firmly in the museum context as represented by such publications as *Recommendations for the Conservation of Musical Instruments: An Annotated Bibliography*<sup>110</sup>, and *Standards for the Care of Musical Instruments*.<sup>111</sup> Both of these publications advocate preservation of status quo through scientifically applied controls, and counsel playing only under strictly controlled circumstances. The instrument as an information resource is advocated in two key publications by Karp.<sup>112</sup>

### *Dissonances*

There is no recorded debate over the virginals' location in the Preservation regimen, so no dissonance between actions and rationales arises. Because of an actively pursued museum conservation policy, and because the museum's collection of instrument is primarily ethnographic, pressure to achieve or maintain playing state of instruments is largely absent.

### **10.2.5 Synopsis of the Three Periods**

The first period of recorded treatments, those by Hodson and Goble, is characteristic of Restitution. The action is to maintain working condition under the rationale of exploring the instrument's historical context.

The critique of 1975 by Denzil Wraight proposes a continuation of playing state, and argues for a revisiting of the current disposition of the instrument. Re-stringing, re-quilling and lowering of string tension are all suggested as the means of better representing a known historical state. The instrument continues to exist in the Restitution regimen.

In the final phase, the treatment of the Jadra virginals is situated firmly in the regimen of Preservation within the collections of the Pitt Rivers Museum. Through a policy of conservation, emphasis is placed upon stability of the materials of fabrication, and a yield of information gained through curtailment of craft intervention.

## **10.3 KIRCKMAN HARPSICHORD**

### **10.3.1 Introduction**

This double manual harpsichord was built in 1777 by Jacob Kirckman of London. In the 1930s the instrument was owned by Major Benton Fletcher, an enthusiast in the revival of early music, who had opened his property, Old Devonshire House, to students of keyboard

and chamber music. In pursuing the goal of recreation of an earlier musical ambience, he had acquired a number of keyboard instruments. From his allusions to concerts on historic instruments it is clear that they were kept in working condition throughout his ownership.



Figure 18. The Kirckman harpsichord on display in Fenton House, Hampstead. The distortion to the bentside described below, and illustrated in Figure 19, is evident.

In 1937 Major Fletcher donated Old Devonshire House to the National Trust with all its holdings including furnishings and musical instruments. It was stipulated that the collections be maintained in working condition so that students of early music could have access to types

of instruments preceding the pianoforte. Old Devonshire house was destroyed by bombing in May 1941, but the instruments had been moved out of London during the Blitz for safe keeping, and only their original stands were lost.<sup>113</sup> In 1943 the National Trust purchased No. 3, Cheyne Walk, in Chelsea, moved the instruments into the house, and reopened the collection after the cessation of hostilities. Major Fletcher died in 1944. Fenton House, with its collection of fine china and furniture, was bequeathed to the National Trust in 1952, and the musical instruments were moved there the same year.<sup>114</sup>

The firm of Arnold Dolmetsch restored the Kirckman harpsichord in 1952 and was responsible for its maintenance until 1965. In 1972 the instrument was restored again, by the firm of Adlam Burnett, and was maintained by them until 1982. In 1984 maintenance of the Kirckman, and the other instruments of the Benton Fletcher collection, was taken over by the firm of Mackinnon and Waitzman. Fenton House has remained open to the public since 1952, and spinets, harpsichords, and clavichords are available in good working condition to students of music selected by audition.

Four distinctly documented periods for analysis in the history of the Kirckman harpsichord can be identified from the above introduction:

- Ownership of Benton Fletcher in the 1930s
- Restoration and maintenance by Dolmetsch 1951-65
- Restoration and maintenance by Adlam, Burnett 1972-82
- Maintenance by Mackinnon and Waitzman

### 10.3.2 First Period: Ownership of Benton Fletcher

#### History

It was Benton Fletcher's intention to promote early music not through a 'dead museum of glass cases, but a living institution with performances of music & lectures upon kindred subjects'.<sup>115</sup> In the opinion of Mimi Waitzman, keeper of the collection of keyboard instruments at Fenton House, 'he didn't see music in isolation: he had a global perspective that encompassed the costumes, the drama and the spectacle. He was interested in preserving a past that he saw was disappearing'.<sup>116</sup> And, in contrast to the Dolmetsch family, who were Fletcher's contemporaries and active in the early music revival, he 'wanted the original artefact, not a reproduction'.<sup>117</sup>

It was therefore necessary to keep all instruments of his collection in sound working condition and, in Waitzman's estimation, 'few have survived without radical and sometimes multiple alterations'.<sup>118</sup> Irvin Hinchcliffe was the restorer responsible for the instruments during Fletcher's lifetime, but no specific documentary evidence of treatment on the Kirkman harpsichord is extant. According to Derek Jackson, whose mother had been Benton Fletcher's housekeeper, and who had himself been associated with the National Trust since 1937, record keeping during restoration and maintenance of the instrument collection was limited to invoices and bills of sale.<sup>119</sup> No records related to the Kirkman harpsichord appear to have survived.



## **Analysis**

### *Actions*

Fletcher's insistence that the collection be active in music performance during this period places the Kirckman harpsichord in the regimen of Restitution. The instrument is maintained in working condition through craft intervention. However, the potential for a lapse into Currency is evident in the reference to 'radical and sometimes multiple alterations'.<sup>120</sup> This indicates the precarious position that an instrument occupies if it is maintained in working state for the long term. This critical aspect is discussed in Section 11.3.4.

### *Rationales*

Authenticity is evident in the reference to Fletcher's desire to recreate a past ambience through the medium of the musical instruments in a staged context -- the drama, costumes and spectacle. The opinion that he required original instruments, not reproductions, is also noteworthy. It indicates, again, the attempt to explore the past through the medium of a genuine historic object; an experience not to be gained through a non-original substitute.

### *Context*

Records of interventions were not routinely kept during the early decades of this century, and the absence of any documentation of treatment can be considered the norm. The publication of technical details of instruments, derived during dismantling for restorative treatment, begins to be encountered only in the 1960s.<sup>121</sup> Similarly, documentation, according to the

practices of conservation as a distinct discipline, appears around this time, with the growing emphasis on treatment records and documentation of condition.

### *Dissonances*

The allusion to a 'dead museum of glass cases' is an early instance of the growing philosophical distance between Restitution and Preservation.<sup>122</sup> The functioning state of the instruments is central to their existence in Fletcher's collection, and it is clear that this attitude is already viewed, in the 1930s, as divergent from the that of some museums.

### **10.3.3 Second Period: Restoration and Maintenance by Dolmetsch, 1951-1965**

#### **History**

In 1951 the Kirckman harpsichord was sent to the workshops of the Dolmetsch firm in Haslemere for restoration. This represented a considerable change from the policy during Benton Fletcher's life time, because during his custodianship he 'wouldn't let a Dolmetsch near it'.<sup>123</sup> Continued running maintenance was necessary after the restoration, and Dolmetsch was involved with this for the next 14 years. In 1956 the nag's head swell, which had been disconnected during the earlier restoration, was reported missing. The instrument was again sent to the Dolmetsch workshop for repair, and substitute nag's head swell parts were supplied by D. McKenna from another, unidentified instrument.<sup>124</sup> Three years later Dolmetsch requilled the lute stop, and made an interior music stand. In 1963 the jacks of the

lute stop were replaced with new ones. The originals have not survived, having been either discarded or lost. The keyboard was rebushed in 1965.<sup>125</sup>

## **Analysis**

### *Actions*

Action during this second period continues to be upon maintenance of playing state. During this process several features of the instrument became irreversibly changed, amplifying Waitzman's view that 'every restoration, no matter how well-documented or sympathetic, wipes away evidence and makes the original condition, one condition more remote'.<sup>126</sup> In this case, records of treatment appear not to have been kept, or at least not provided to the owners of the instrument. The substitution of components during on-going treatment provides further evidence for the potential lapse into Currency of protocols associated with Restitution.

### *Rationales*

Although not explicit in the sources, the continued use of the Kirkman at Fenton House, in compliance with Benton Fletcher's wishes, argues that the search for the experience of authenticity through use of an original instrument is still the motivator.

### *Context*

The period of the Dolmetsch firm's association with the instrument coincides with a profound change in thought regarding the value of the information to be gained in the treatment of musical instruments. Publications of the results of restorative treatments begin to

appear, together with technical studies of instrument-making practice. However, while the developing museum-based philosophy of conservation was well articulated in such publications as *The Conservation of Antiquities and Works of Art*<sup>127</sup>, and would soon be encoded,<sup>128</sup> it would not have any influence upon collected musical instruments until the following decade, and then only within the mainstream museum world.

### *Dissonances*

The rising presence of museum-based philosophies of conservation during this period appears not to have influenced the conceptual approach to the treatment of the Kirckman. The loss of parts of the instrument, such as the original nag's head swell lever and the original (or earlier) jacks from the lute stop, indicates that the documentary and signifying function of these components, even when divorced from the instrument, was not appreciated. The idea that these parts are original to the instrument, and should be retained for that reason alone, is overtaken by their essentially disposable nature.

The absence of any documentation of work done indicates the commercial exigencies of treatment, rather than a lack of exploratory nature. The instrument is worked upon so that it can be played, not so that the process of treatment can become a source of historical technical information, as is the case when Restitution is fully developed under the enquiring thrust of the early music movement. Neither is the treatment documented for the purposes of making a permanent record of intervention, as would be the case in the Preservation regimen.

Both the absence of documentation and the apparent disposal of original parts make the action at this stage in the instrument's life appear 'old-fashioned'. Trends in the treatment of historic instruments during the 1950s and 60s are out of phase with this attitude. Also, the replacement of original parts with facsimiles, or parts from another instrument, shows the potential for on-going treatments in the Restitution regimen to lapse into Currency. This illustrates the fine line between the rationales of re-establishing an earlier state, and the rationales of maintaining that state by continuous intervention.

### **10.3.4 Third Period: Restoration and Maintenance by Adlam Burnett**

#### **History**

In 1972 the firm of Adlam Burnett made a proposal for restoration work based upon an examination of the instrument. The proposed work included: refitting the lower 8' manual with quill plectra in place of the existing leather; requilling all other registers with Delrin throughout, and fitting new tongues in the jacks as necessary; reattaching the loose hitch pin rail at the bass and treble ends; removal of the baseboard in order to correct the lift at the base end of the bridge; and general repairs to and setting up of the keyboard, restringing, adjustments to the stop levers, machine, and pedal mechanisms. This was described as 'a major restoration' and the removal of the baseboard was considered 'regrettable but necessary'.<sup>129</sup> This work was commenced in 1974 and by August 1977 Adlam Burnett reported on the completed work.<sup>130</sup>

Aside from the proposed treatment described above, further work of a much more interventive nature had been found necessary. The bentside of the case close to the right cheek had become distorted by string tension. The tendency of the cheekpiece to tip backwards (away from the player) is a very common feature in harpsichords of this period (Figure 19). This distortion is related to the designer's progressive increase of string tension in successive models, while not accurately coupling this with concomitant increases in the structural strength of the wood components.

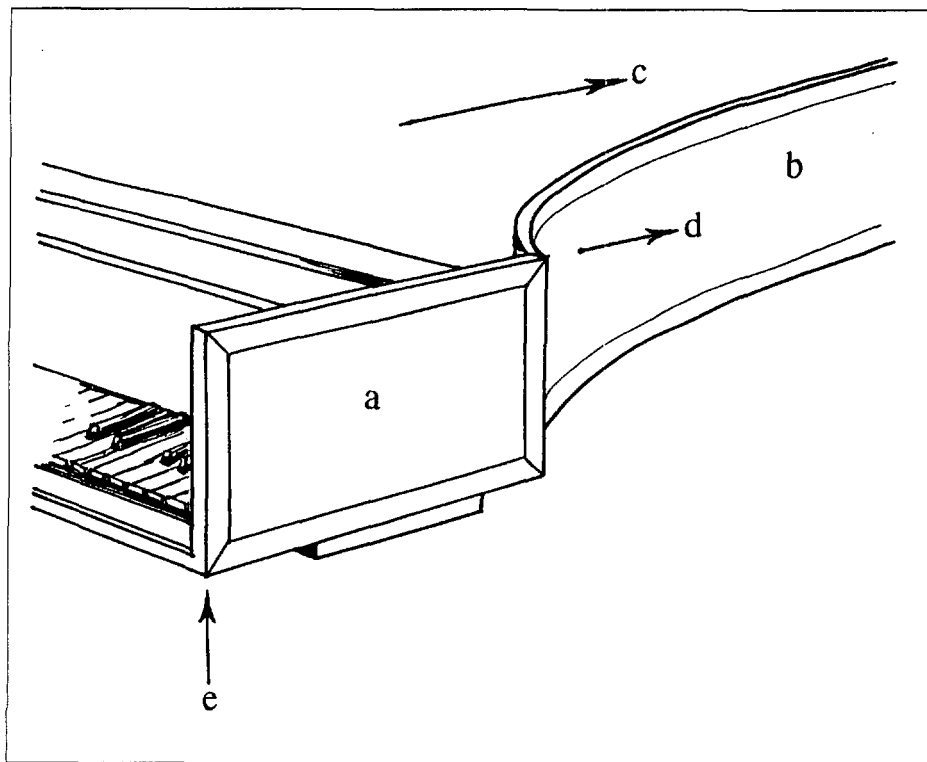


Figure 19. Distortion of the bentside (b). String tension (c) causes force (d) which tips the cheekpiece (a) upwards, causing corner (e) to rise. This distortion is easily visible in the photograph of the Kirkman (Figure 18).

The distortion of the instrument's bentside necessitated a process of reforming using a wooden caul fitted to the curve of the side. This entailed complete dismantlement of the instrument, and removal of the veneer from the underlying carcass of the bentside. A series

of saw cuts was then made vertically across the distorted area, and these were filled with wood wedges, glued in place, thus forcing the wood back into its original shape. The veneer was then replaced. While the instrument was dismantled all interior bracing was re-glued, and a prop which had been inserted between the baseboard and 4' bridge was removed. This had been added during a previous restoration and had resulted in a muffling of resonance. Wood reinforcing battens that had been glued under the soundboard were removed. Both these treatments resulted in a clearer and less muffled tone. The tongues of 200 jacks had to be replaced with new ones because the routine removal and replacement of the quilling as it wore out, or as fashions changed, had enlarged the holes in which it was secured. Twenty-two jacks were replaced as they were considered too small to work correctly. These were assumed to have come originally from another instrument. A new jack rail was built and installed to replace the worn original.

In 1982 the instrument was returned to Adlam Burnett for regulation, levelling, and cleaning. The jacks were requilled throughout in 'bird', replacing the synthetic Delrin that had been installed earlier. Wear to the balance and front key guide mortices was corrected, and new dampers were fitted throughout.<sup>131</sup>

## **Analysis**

### *Actions*

It is significant that 'a major restoration' was considered necessary in 1972,<sup>132</sup> although major work had been carried out on the instrument by Dolmetsch in 1951. Furthermore, during the

1972 work, several features of earlier treatments were removed, including the prop between the baseboard and 4' bridge, and the reinforcing battens glued under the soundboard.

Materials that were considered expedient to insert in a treatment of 1951 were removed two decades later. Inappropriate jacks were also removed and replaced with new ones, and a new jack rail was supplied to replace the worn original. These changes all illustrate the continuing maintenance necessary after restoration, especially at a time when new knowledge is causing opinions upon approaches, materials and techniques to be updated and modified.

Correction of the distortion to the bentside required highly invasive treatment. In order to ensure a continued playing state, it was therefore necessary to correct a defect of manufacture that originated with the maker of the instrument.<sup>133</sup> Similarly, the use of Delrin, a synthetic material substituted for quill to enhance reliability, can be seen as an improvement upon the original disposition. Both these features of the treatment represent improvements, and thus illustrate the narrow conceptual boundary between the regimens of Restitution and Currency. The later removal of the Delrin, and return to the use of quill indicates a tendency to withdraw from this modernization.<sup>134</sup>

Documentation of the work included a detailed proposal for treatment and an equally thorough record of the work actually performed.<sup>135</sup> Copies of this material were deposited with the owners. These documents indicate two trends: the desire to disseminate information of an historical and technical character, and the perceived necessity for a permanent record of treatment. The former results from the investigative nature of the early music movement, while the latter arises from the values of museum-based disciplines.



### *Rationales*

Values associated with authentic experience are clearly evident in the return of the Kirckman to a reliable playing state. The instrument is in a location where the personal dialogue between keyboard players and historic musical instruments is of paramount importance. However, hints of a conservation consciousness are encountered in the statement that such a major treatment as correcting the bent-side distortion is considered 'regrettable but necessary'.<sup>136</sup>

The assertion that removal of the interior prop and the reinforcing battens resulted in a clearer and less muffled tone may be true, but the perceived outcome is still based on a subjective value judgement.<sup>137</sup> As the original auditory qualities of the instrument cannot be known with any certainty, judgements upon its tone colour are necessarily conjectural, and are intimately and inextricably bound up with current musical taste.

### *Context*

At the time of the major treatment (1972) the sentiment was still current from the 1968 publication, *Preservation and Restoration of Musical Instruments*, that restoration was commendable.<sup>138</sup> The year before the treatment was undertaken the conference in Antwerp, *Restauratieproblemen van Antwerpse Klavecimbels*, took place, at which restorers and curators discussed the problems associated with interventive treatment.<sup>139</sup> However, the results of this conference were not widely disseminated. In 1976 Derek Adlam published the technical and historical results of major interventive treatment of a harpsichord, which indicates that there was still a scholarly venue for descriptions of restorative procedures.<sup>140</sup>

As noted above, the 'regrettable but necessary' aspect of the treatment indicates a feeling for the integrity of the instrument.<sup>141</sup>

### *Dissonances*

In general, both the work done on the Kirckman at this time, and the rationale behind it, are consonant with the values of Restitution. However, specific actions such as the attempts at eradicating a maker's defect, and the use of synthetic quilling, are inconsistent with authentic experience, and suggest improvement. Also, it is recognized that invasive treatment will detract from the instrument as a medium of exchange with the past -- that its integrity will be compromised -- but while it is regretted, it is judged that the work must still go ahead. This indicates an awareness of the developing discipline of conservation, and suggests a dissonance surrounding this action.

## **10.3.5 Fourth Period: Maintenance by Mackinnon and Waitzman**

### **History**

In October of 1984 the keyboard firm of Mackinnon and Waitzman examined the harpsichord and produced a report of its condition.<sup>142</sup> It was noted that the cheekpiece on the bentside was again tipping back even though it had been corrected only seven years previously. In addition, there were splits in the soundboard, the wrestplank was becoming detached, and there was a gap between the treble hitchpin rail and the bentside. All these features were attributed to distortions resulting from continuing string tension, and it was clear that the

previous intervention had had only a temporary corrective effect. The examiners also identified a marked deterioration in the playing state of the instrument. The playing action was judged to be 'shocking' and 'utterly inconsistent with normal wear and tear'.<sup>143</sup> All the quill from the restoration completed in 1977 had since been removed and the instrument requilled partially with natural quill and partially with Delrin. During this process some of the jack tongues had been damaged, and some had been split so badly by removal of the old quilling material, that they could no longer be used. During replacement of the quilling many of the flyback staples had been distorted, and the tongue springs damaged. All jacks had been liberally coated with olive oil. The key dip had been altered in the treble by an additional layer of felt and a folded concert programme. The order of stagger (the plucking order of the jacks) had been disturbed, while the damping proved ineffective and badly adjusted. The authors of this report concluded:

We recommend that no structural work be carried out on this instrument [...] The number of times that this repair can be carried out on a two hundred year old keyboard being limited, we feel that it should not be undertaken until absolutely necessary.<sup>144</sup>

Work was undertaken to bring the harpsichord back into playing state with the minimum of intervention. A report of March 1987 details all the work carried out on the instruments of the Benton Fletcher collection, including the 1777 Kirckman.<sup>145</sup> All 244 jacks had the olive oil removed, and 77 of them also needed individual repairs. In most cases this consisted of either rebuilding the existing tongues, or complete replacement. The new set-up reconstructed the Adlam Burnett restoration of 1977.<sup>146</sup>

The report referred to above also included a review of the playing times of all the instruments in the collection over two consecutive one-year periods. The Kirkman harpsichord's figures were reported as follows:

Number of occasions played	56
Most consecutive hours	5
Total hours 1984-85	25¼
Total hours 1985-86	68

Limits to both playing and practice time were suggested.

In 1994 a further condition report by MacKinnon and Waitzman on the whole collection highlighted the deteriorating condition of the Kirkman harpsichord. The machine stop was not moving smoothly and the 'general condition of the harpsichord has begun to cause unease'.<sup>147</sup> The authors noted that 'signs of deterioration are increasingly apparent' and 'reliability is just beginning to be affected'.<sup>148</sup> A record of hours played from 1988 to 1994 was provided:

Year:	88	89	90	91	92	93	94
Playing time (hours):	16	43¾	29¾	55¼	44¼	44	36

The publication of *Musical Instrument Museums*, a review of the state of musical collections in the United Kingdom undertaken by the MGC, stimulated the production of a revised policy on the use of the Benton Fletcher Collection.<sup>149</sup> The following observation was made:

If we continue, as we have until now, to repair instruments replacing worn out parts with new, and modifying old parts so that they may function, we will be even less able to present them in good faith, as 'original' objects. Rather, in many important respects, they will have become working replicas of themselves.<sup>150</sup>

In March of 1995 a schedule of time limits to be applied to the keyboard collection was produced for distribution to all players of the instruments at Fenton House. The committee responsible for the decision stated that:

For many reasons the Committee are reluctant to withdraw instruments permanently from playing condition. Playing formed an integral part of Major Fletcher's vision for his bequest, and music has always added a lively and exciting atmosphere to Fenton House.<sup>151</sup>

Playing time on the 1777 Kirckman harpsichord was limited to four hours per season (March to October). The Kirckman had always been a favourite instrument of visiting players, as a comparison of its playing time with other instruments in the collection indicated.<sup>152</sup> The revised policy was an attempt to distribute use more evenly:

One intention of this measure is to help spread the hours of use more evenly over the whole Collection. We very much hope that our frequent and regular players will feel encouraged to try more of the instruments and use all the time available to them, for we greatly value their support.<sup>153</sup>

The Kirckman harpsichord is kept in limited working condition in Fenton House and monitored at three-monthly intervals for any signs of deterioration of its playing state. The environment of the rooms in which all instruments are kept is monitored continually, and measures are taken to minimise relative humidity fluctuations.

## **Analysis**

### *Actions*

Examination of the harpsichord showed that it had deteriorated markedly since last restored by Adlam Burnett in 1982. The instrument had been re-quilled with a mixture of materials, both artificial and natural, jack tongues had been damaged, flyback staples had been distorted, and the tongue springs damaged. Olive oil had been used excessively as a lubricant. In addition, the action of the instrument was badly out of adjustment.<sup>154</sup> There is no indication of a projected return to a previous state, or indeed a continuation of the current set-

up, and damage has been caused in the process. These actions fall into a category by themselves; critical analysis of these case studies seeks to place actions on historic instruments into context, and to assess them in the light of social and technical demands, but incompetence does not fit comfortably into this schema.

Of more concern to the long-term playing status of the Kirckman was the observed return of the distortion 'corrected' in the treatment of 1974-77. In addition to the tipped cheekpiece, cracks were seen at other places in the instrument where stress had been relieved.

Nevertheless, in the report the recommendation that 'no structural work be carried out on this instrument' is tempered by the proviso that it 'should not be undertaken until absolutely necessary'.<sup>155</sup> So, while the strictures of Preservation are understood and appreciated, it was felt that the individual circumstances of the instrument still dictated invasive treatment if the decision to continue playing status was forced.

Because of the stipulations of the playing policy of the collection ('playing formed an integral part of Major Fletcher's vision for his bequest'<sup>156</sup>), a strategy of limiting use of the Kirckman harpsichord, and of spreading playing time more evenly over the other instruments of the collection, was instituted. The programme that resulted from this strategy epitomises the pragmatic approach. Control of the situation is taken by compiling numbers, data, and statistics centred upon the recording of playing time. Three-monthly monitoring of the instrument was instituted as a further check on its well-being.

### *Rationales*

The fact that the instrument was maintained in a playing state appropriate to its presumed historical disposition indicates the continuation of Restitution. The playing policy of the collection still dictates active use of the harpsichord in the performance of period music, and also encourages the didactic element. Visiting players are still encouraged to support the collection through regular use of the instruments.

Elements of Preservation appear in the reluctance to submit the Kirckman harpsichord to another invasive treatment because ‘we will be even less able to present [the instruments] in good faith, as “original” objects’.<sup>157</sup> The statement that the instruments ‘will have become working replicas of themselves’<sup>158</sup> is the antithesis of continuity, where exactly this process takes place.

### *Context*

By 1984 consciousness of the expressed need for preservation of museum collections of musical instruments was a solid feature of the conservation literature. A working group of CIMCIM had produced a draft of guidelines for public access to instrument collections.<sup>159</sup> These were published in revised form in a booklet in 1984. In a move to minimise the perceived division between ‘conservator’ and ‘restorer’, which is specific to English usage (as discussed in Section 5.3), ICOM published a definition of the professional wherein the term ‘conservator/restorer’ was legitimized.<sup>160</sup> In addition, the papers by Karp and Barnes that had appeared some years earlier in *Early Music*, indicate dissemination of the conservation perspective beyond its own literature.<sup>161</sup>

### *Dissonances*

Maintaining playing state while still adhering to the values of Preservation is a clearly dissonant. It represents an attempt to strike a balance between the integrity of the instrument and explorations of its subjective attributes. The discomfort that this compromise incurs is clearly expressed in the Committee's reluctance 'to withdraw instruments permanently from playing condition', even though there is evidence of the detriment to their state that playing causes.

### **10.3.6 Synopsis of the Four Periods**

During the ownership of Benton Fletcher, the Kirckman harpsichord was firmly ensconced in the Restitution regimen. It was used for the performance of period music, and was maintained in a working state that replicated some historical model by craft intervention. This continued under the restoration and maintenance by Dolmetsch, between 1951 and 1965.

During the restoration and subsequent maintenance by Adlam Burnett, between 1972 and 1982, the values of Restitution are still evident but, in keeping with the academic emphasis on the study of early instruments, the practices of record keeping and general documentation are more advanced. Elements of Currency are seen in the improvements brought about by the use of Delrin for the plectra, and in the attempts to correct the maker's error of construction.

In the period of maintenance by Mackinnon and Waitzman there was a marked shift in thinking. The values of Preservation were introduced in the advice not to submit the



harpsichord to further invasive treatment, in the necessity for monitoring the playing time and condition of the instrument, and in attention to the environment in which the instrument resided. There was still a thrust toward continuing the Kirckman's playing state, but this appears to be regarded as a compromise position of temporary duration.

## NOTES

1. MS 4117, Parry Room, Royal College of Music Library.
2. Bizzi, p. 74.
3. Instrument information files, Royal College of Music Museum of Musical Instruments.
4. Wells, Elizabeth, letter to John Barnes, 4 May 1984, records of Musical Instrument Museum, Royal College of Music.
5. Barnes, John, *Examination Report: Bohak Clavichord*, December 1976, records of the Museum of Instruments, Royal College of Music.
6. Barnes, John, *Examination Report*, p. 2.
7. Barnes, John, letter to Elizabeth Wells, 26 June 1984, records of the Museum of Instruments, Royal College of Music.
8. Barnes, John, letter to Elizabeth Wells, 21 November 1986, records of the Museum of Instruments, Royal College of Music.
9. Kopytoff, p. 73.
10. MS 4117, Parry Room, Royal College of Music Library.
11. Barnes, John, *Examination Report: Bohak Clavichord*, December 1976, records of the Museum of Instruments, Royal College of Music, p. 2.
12. *ibid.*
13. Barnes, John, letter to Elizabeth Wells, 21 November 1986, records of the Museum of Instruments, Royal College of Music.
14. Dart, p. 73.

15. See, for example, Ruskin, *Seven Lamps*, p. 161; and Morris, 'Principles'.
16. Hill, Arthur F., letter to Mr. Chapman, 3 August 1911, records of the Museum of Instruments, Royal College of Music.
17. Hill, Arthur F., letter to Mr. Chapman, 29 September 1911, records of the Museum of Instruments, Royal College of Music.
18. Broadwood and Co., 'Estimate for Repair', 22 November 1911, records of the Museum of Instruments, Royal College of Music.
19. Arthur F. Hill, bill of sale to Mrs. Chapman, July 16 1912, Musical Instrument Museum records, Royal College of Music.
20. Hill, Arthur F., letter to Mr. Chapman, 29 September 1911, records of the Museum of Instruments, Royal College of Music.
21. *ibid.*; see also Boalch, p. 64.
22. Barnes, John, *Examination Report: Bohak Clavichord*, December 1976, records of the Museum of Instruments, Royal College of Music, p. 3.
23. Hill, Arthur F., letter to Mr. Chapman, 3 August 1911, records of the Museum of Instruments, Royal College of Music.
24. Hill, Arthur F., letter to Mr. Chapman, 29 September 1911, records of the Museum of Instruments, Royal College of Music.
25. *ibid.*
26. Barnes, John, *Examination Report: Bohak Clavichord*, December 1976, records of the Museum of Instruments, Royal College of Music, p. 2.
27. Arthur F. Hill, bill of sale to Mrs. Chapman, July 16 1912, Musical Instrument Museum records, Royal College of Music.
28. Lowenthal, p. 52.
29. Campbell, p. 295.
30. Details of this report, and the thinking behind the decisions made upon the future of the instrument, are contained in John Barnes's publication 'Haydn's Clavichord'.
31. Barnes, John, letter to Elizabeth Wells, 11 January 1977, records of the Museum of Instruments, Royal College of Music, p. 1.
32. Wells, Elizabeth, letter to John Barnes, 31 January 1977, records of the Museum of Instruments, Royal College of Music.

33. Among those consulted were Friedemann Hellwig, restorer at the Germanisches Nationalmuseum; Alfons Huber, restorer at the Museum für Kunstgeschichte, Vienna; Daniel Spika, curator of the Narodni Museum, Prague; and Derek Adlam, Christopher Clarke, and William Dow, restorers in private practice.
34. Wells, Elizabeth, letter to John Barnes, 16 July 1977, records of the Museum of Instruments, Royal College of Music.
35. Barnes, John, letter to Elizabeth Wells, 9 August 1978, records of the Museum of Instruments, Royal College of Music.
36. Wells, Elizabeth, letter to John Barnes, 6 April 1983, records of the Museum of Instruments, Royal College of Music.
37. *ibid.* The term 'Haydn Centenary' is used rather loosely in the correspondence; it refers to the 250th anniversary of Haydn's birth in 1732.
38. Barnes, John, letter to Elizabeth Wells, 27 March 1984, records of the Museum of Instruments, Royal College of Music.
39. Wells, Elizabeth, letter to John Barnes, 4 May 1984, records of the Museum of Instruments, Royal College of Music.
40. *ibid.* The 'twist' refers to a corner-to-corner distortion due to string tension.
41. *ibid.*
42. Barnes, John, letter to Elizabeth Wells, 26 June 1984, records of the Museum of Instruments, Royal College of Music.
43. Barnes, John, letter to Elizabeth Wells, 14 October 1986, records of the Museum of Instruments, Royal College of Music.
44. Barnes, John, letter to Elizabeth Wells, 21 November 1986, records of the Museum of Instruments, Royal College of Music.
45. Barnes, John, letter to Elizabeth Wells, 3 December 1986, records of the Museum of Instruments, Royal College of Music.
46. *ibid.*
47. *ibid.*
48. Wells, Elizabeth, letter to John Barnes, 19 June 1987, records of the Museum of Instruments, Royal College of Music.
49. *ibid.*

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52. Wells, Elizabeth, letter to John Barnes, 31 January 1977, records of the Museum of Instruments, Royal College of Music.
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62. *ibid*.
63. Wells, Elizabeth, letter to John Barnes, 4 May 1984, records of the Museum of Instruments, Royal College of Music.
64. Wells, Elizabeth, letter to author, 16 February 1999.
65. Barnes, John, letter to Elizabeth Wells, 3 December 1986, records of the Museum of Instruments, Royal College of Music.
66. Wells, Elizabeth, letter to John Barnes, 16 July 1977, records of the Museum of Instruments, Royal College of Music.
67. *ibid*.

68. Barnes, John, letter to Elizabeth Wells, 14 October 1986, records of the Museum of Instruments, Royal College of Music.
69. Wells, Elizabeth, letter to John Barnes, 16 July 1977, records of the Museum of Instruments, Royal College of Music.
70. *ibid.*
71. Karp, 'Restoration', pp. 79-84; and Barnes, 'Evidence', pp. 213-218.
72. Berner, et al., p. 8.
73. Barnes, John, letter to Elizabeth Wells, 3 December 1986, records of the Museum of Instruments, Royal College of Music.
74. Wells, Elizabeth, letter to John Barnes, 4 May 1984, records of the Museum of Instruments, Royal College of Music.
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76. Boalch, pp. 407-408.
77. Wraight, p. 165. Wraight's attribution of the instrument to Franciscus Brixienis is disputed by O'Brien in 'Marco Jadra', p. 4.
78. Catalogue of musical instruments, Pitt Rivers Museum, Oxford.
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81. Goble, Robert, invoice to W.T. Penniman, 16 February 1954, Pitt Rivers Museum records, Oxford University.
82. Anon., note to file, Pitt Rivers Museum records, Oxford University.
83. La Rue, Hélène, transcript of personal communication to author, May 1995.
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95. *ibid.*
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101. Cranstone, B.A.L., letter to Denzil Wraight, May 7 1980, Pitt Rivers Museum records, Oxford University.
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104. Berner, et al., p. 8.

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107. O'Brien, Grant, *Virginal Measurement Short Form: Jadra Virginals*, October 1991, Russell Collection of Early Keyboard Instruments, Edinburgh.
108. La Rue, pp. 12-13.
109. For example: Wraight, 'Stringing'; and O'Brien, 'Marco Jadra'.
110. ICOM, 1993.
111. MGC, 1995.
112. Karp, 'Restoration'; and Karp, 'Musical Instruments'.
113. Russell, *Keyboard Instruments*, p. 3.
114. *ibid.*
115. Fletcher, Benton, letter to Madam Benenson, 12 April 1937, Fenton House records, The National Trust.
116. Ballinger, p. 9.
117. *ibid.*
118. *ibid.*
119. Jackson, Derek, transcript of interview with author, 25 April 1996.
120. Ballinger, p. 9.
121. See, for example, Hubbard, *Harpsichord Making*; and Shortridge, *Italian Harpsichord*.
122. Fletcher, Benton, letter to Madam Benenson, 12 April 1937, Fenton House records, The National Trust.
123. Jackson, Derek, transcript of interview with author, 25 April 1996.
124. Note to file, Fenton House records, The National Trust.
125. *ibid.*
126. Waitzman, 'Ancient Musicland', p. 22.
127. Plenderleith (1956)

128. *The Murray Pease Report* (1968)
129. Adlam Burnett, *Proposal for Restoration*, 24 October 1972, Fenton House records, The National Trust.
130. Debenham, W.M., *Report on Work Done*, 25 August 1977, Fenton House records, The National Trust.
131. Anon., *Report*, 1982, Fenton House records, The National Trust.
132. Adlam Burnett, *Proposal for Restoration*, 24 October 1972, Fenton House records, The National Trust.
133. It is not clear whether this 'correction' was thought to have any long-term benefit, as the string tension (and thus the force on the wood) remained the same after treatment.
134. Anon., *Report*, 1982, Fenton House records, The National Trust.
137. Adlam Burnett, *Proposal for Restoration*, 24 October 1972, Fenton House records, The National Trust; and Debenham, W.M., *Report on Work Done*, 25 August 1977, Fenton House records, The National Trust.
136. Adlam Burnett, *Proposal for Restoration*, 24 October 1972, Fenton House records, The National Trust.
137. Anon., *Report*, 1982, Fenton House records, The National Trust.
138. Berner, et al., p. 8.
139. Scowronek.
140. Adlam, 'The Vaudry'.
141. Adlam, Burnett, *Proposal for Restoration*, 24 October 1972, Fenton House records, The National Trust.
142. Mackinnon and Waitzman, *Report on Condition of 1777 Kirckman Harpsichord*, October 1984, Fenton House records, The National Trust.
143. Makinnon and Waitzman, *Report*, 1984, p. 2.
144. Makinnon and Waitzman, *Report*, 1984, p. 3.
145. Mackinnon and Waitzman, *A Report on the Condition of the Keyboard Instruments and Humidification System, and on the Work Carried Out in the Period September 1985, to February, 1987*, March 1987, Fenton House records, The National Trust.
146. Mackinnon and Waitzman, *Report*, 1987, p. 2.



147. *ibid.*

148. Mackinnon and Waitzman, *A Report on the Condition of the Keyboard Instruments and on Work Carried Out in the Period September, 1993 to September, 1994*, November 1994, Fenton House records, The National Trust, p. 4.

149. Mackinnon and Waitzman, *Revision of Playing Policy in the Light of Museums and Galleries Commission Report*, November 1994, Fenton House records, The National Trust.

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151. Marsden, J., Ashby, J. and Waitzman, M., *Benton Fletcher Collection of Early Keyboard Instruments*, Fenton House records, The National Trust, p. 1.

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154. Mackinnon and Waitzman, *Report on Condition of 1777 Kirckman Harpsichord*, October 1984, Fenton House records, The National Trust.

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156. Marsden, J., Ashby, J. and Waitzman, M., *Benton Fletcher Collection of Early Keyboard Instruments*, Fenton House files, The National Trust, p. 1.

157. Mackinnon and Waitzman, *Revision of Playing Policy in the Light of Museums and Galleries Commission Report*, November 1994, Fenton House records, The National Trust, p. 2.

158. *ibid.*

159. 'Recommendations for Access', 1982.

160. von Imhoff, 1984.

161. Karp, 'Restoration'; and Barnes, 'Evidence'.

## **CHAPTER ELEVEN - DISCUSSION**

In this chapter the results of critical analysis of the nine case studies are discussed, focusing upon the soundness of actions taken on the instruments, and the viability of the regimens in which the actions take place. It is shown that Currency and Preservation are regimens where stability and confidence in actions and rationales are evident, while Restitution occupies an equivocal position, as the values of Currency are co-opted to support the aspirations of historical research, musicology and performance practice.

### **11.1 THE CONFIDENCE OF CURRENCY**

Analysis of the case studies on the Coates barrel organ, the Steinway piano, and the Amati quartet, showed that the actions taken on these instruments and the rationales for action fell predominantly in the regimen of Currency. This section places these actions and rationales in a wider context, and examines the relative values of subjective and objective criteria.

#### **11.1.1 The Polysemic Nature of the Instrument**

Instruments were shown to undergo repeated cycles of repair, upgrading, and use, during which their original fabric gradually diminishes. In the case of a singularized instrument, what persists is the semiological idea of the object, not the thing itself, and this idea is a social construct compounded of knowledge about the instrument, and attitudes and assumptions towards it. People's reactions to such instruments are necessarily integrated;

their perception is selective and conditioned by both immediate surroundings and past and ongoing experiences. Thus, the instrument is polysemic, in that different people react in different ways to it.

In psychological terms, a person's approach and response to any experience is dictated by the 'set' which accompanies it. In his pioneering work on thought and judgement, D.M. Johnson defined the set initially as 'a concept of intermediate level, functioning between motives and acts'.<sup>1</sup> Wishing to play an organ made by Richard Coates (for example) is the motive, the experience resulting from hearing music played upon it is the act, and between the two lies the set. Johnson states that the set is 'a readiness to make a specified response to a specified stimulus', but further amplifies this by stating that 'a person can be prepared in advance for any stimulus or any aspect of a complex stimulus situation that he can identify and for any activity that he can perform'.<sup>2</sup>

Depending upon the contents of their individual sets, one observer regards the damages to Glenn Gould's piano (the one refurbished for use in Rideau Hall) as the 'work of beavers',<sup>3</sup> while others regard them as patina evocative, not just of Gould's playing style, but of the effort that had gone into the perfection of his craft.<sup>4</sup> At the primary level of signification, the damages are signs, which signify to any observer that the instrument is not in new condition, and that it has undergone wear and degradation. Because such primary level observations are shared by all viewers, they carry no emotional implications. However, at the secondary level of signification, which Roland Barthes names connotation, contemplation of the damages leads viewers into a cognitive level of subjectivity. It is at this level that 'myth is created and

consumed'.<sup>5</sup> To one viewer the damages detract from the perfection of the instrument and the image of Glenn Gould that it evokes, while to another they provide the touchstone to fantasies upon the nature of his perfection and how it was won. In both 'readings' the subjective extrapolations go far beyond the bounds of the physical object. The social implications of the polysemic nature of these damages to the surface of the instrument are evident in the widely divergent readings of the damages, and the equally divergent actions taken. Actions upon the instrument are thus channelled by the cultural predisposition of the viewer, and programmed by the social milieu in which the observation takes place. As Storey notes in his paraphrase of Barthes, 'which codes are mobilized will depend on the triple context of the location of the text, the historical moment and the cultural formation of the reader'.<sup>6</sup> The 'text' (in this instance, the damage to the piano) is located in a particular musical and social milieu, the historical moment comes when intervention is required, and the 'reader' (in this instance, the artisan) is motivated by the set of values relating to his craft. In the case of Gould's Steinway, the 'text' (the damage) was located in a context where the values of Currency prevailed, the historical moment was the demand by the owners (who controlled the instrument's disposition) to bring it into a working state, and the cultural formation of the reader was in the values of continuity effected by intervention with tools and materials. The result is an object that has been irreversibly transformed, yet has still been described as 'Glenn Gould's piano'. The same holds true for the Amati quartet and the Coates barrel organ, all of which have undergone transformation of structure and musical identity, but are still closely associated with the traditions, the myths, and the legends of their makers and users.

### 11.1.2 Continuity Through Transformation

The regimen of Currency is characterized by the desire for continuity which is achieved through craftsmanly intervention. All the parts of the Coates barrel organ which contributed to its musical character were either replaced or changed to suit musical taste current at that time. Even the music encoded on the barrels themselves was altered. In the words of the most recent intervener: 'it would be wrong to refer to the project as a "restoration", if by that word is meant returning to its original condition [...] its operation must be made simple and reliable, as it was not originally'.<sup>7</sup> The Steinway piano owned by Glenn Gould had all vestiges of his use stripped from it during the process of refurbishment to an as-new state for the use of the Governor General. It was 'rebuilt at public expense so that all traces of the characteristics for which he loved it [were] carefully removed'.<sup>8</sup> It was 'treated like any other piano' in need of refurbishment.<sup>9</sup> The quartet of Amati bowed-string instruments had undergone centuries of alteration and repair before being sold to the University of Saskatchewan, and the process continued after the transfer. In the words of one commentator: 'Their creators would not recognize their own instruments [...] the Amatis today don't sound anything like their creator intended'.<sup>10</sup> All these interventions, which have altered the fundamental character of the musical instruments, are evocations of a 'living past bound up with the present'.<sup>11</sup> The instruments are transformed in order to protect their place within a continuing musical tradition.

How is it possible to reconcile such radical transformation of the physical substance of the instrument with the continuing presence of its original qualities? Having the Coates barrel

organ 'in full voice, resonating in the Temple' after its most recent treatment was said to be 'the effect the builder sought in 1820'.<sup>12</sup> Glenn Gould's Steinway was 'in such good condition that Gould himself would not have been ashamed to play it in public'.<sup>13</sup> The aesthetic and monetary value of the instruments of the Amati quartet increased in spite of their radical transformation. The answer lies in the dominance of objective values by subjective ones; in the capability of feelings to displace or relegate knowledge. In all cases, the emphasis is upon values not associated with the materials and physical disposition of the instrument.

### **11.1.3 The Objective/Subjective Balance**

In order to support the concept of a transformation of the fabric of the instrument running in parallel with the continued presence of the historical maker or user, a firmly held set of assumptions is required. As was shown in Section 3.3.2, these assumptions are rooted in the subjective values of the pathetic fallacy and the legendary, and together constitute the presence of an organic and psychic quality resident in the instrument. Within this context, the balance of subjective to objective must be tipped heavily in favour of the subjective, so that continuing craft activity can be justified and countenanced.

An example of the relative merit afforded to subjective criteria is music critic Elissa Poole's analysis of the sound of the University of Saskatchewan's Amati quartet: 'The Amati's sound in that first concert was anticlimactic, but a year later, after the instruments had been worked on and played in, it was a revelation'.<sup>14</sup> In her belief in the development of the instruments through playing, while at the same time omitting consideration of the potential development

of the players during the same period, she is subscribing to the idea that inorganic objects are capable of exhibiting organic attributes. The players of the Amati instruments also speak of the instruments' development, and are of the opinion that peak efficiency was achieved while in their hands.<sup>15</sup> In the dynamic between the player and the instrument, the player is regarded as a constant, and the instrument becomes the variable, capable of non-mechanistic development and expression. It is noted also that the intervention of the artisan is 'invisible' within this structure of thought. This feature will be returned to in the following chapter.

The observations that Glenn Gould's piano must be used by professional musicians because 'a piano will deteriorate unless it is used',<sup>16</sup> and that 'regular use [is] necessary to prevent its deterioration', are expressions of another basic assumption, that use of the object has preservative qualities.<sup>17</sup> However, when considered closely, this is only so because, in the regimen of Currency, use implies servicing which, in turn, implies replacement of worn parts. In this context the focus is deflected away from the materials of fabrication, which are valued only as long as they perform their function, and are considered entirely replaceable without penalty.

If such assumptions are examined from an objective point of view, flaws become apparent. The assumption that preservation is ensured through playing stands in marked contrast to the observation made by keyboard specialist John Watson, who states that through natural wear alone, preservation by function is a 'dangerous myth'.<sup>18</sup> Regarding critical discrimination of the tone qualities of instruments, in his recently published study of the violin, James Beament points out the fallacy of attributing tone to an instrument. He argues that 'when [the violin] is

played, what we perceive and how we characterize the sound are entirely dominated by how the particular player bows it'.<sup>19</sup> Tone, he further argues, is a product of the brain of the listener or the player, not of the materials of fabrication of the instrument.<sup>20</sup> He states that discrimination by listening to the tone of the instrument is imaginary:

Every listening test confirms the conclusion reached from considering our hearing system, that we are incapable of remembering this sound [the tone of the instrument] over quite short periods. It cannot be used to determine the change of an instrument over time, or to identify an instrument when played.<sup>21</sup>

Thus, the questions of whether the auditor was able to distinguish between the acoustic attributes of four separate Amati instruments over the space of a year, and could also disentangle this information from any individual development of the players of the instruments over the same period, are not entertained. The subjective impression is given greater weight than objective observations. The aesthetic discrimination shown in identifying the unique characteristics of individual violins is explained by Beament in the following way: 'If people believe they can remember this sound, they will persuade themselves that they can, and that is why the sound is so subjective and susceptible to suggestion, belief, and myth'.<sup>22</sup>

The continuing identity of Glenn Gould in the refurbished Steinway piano, and the continuity of Richard Coates in the remaining vestiges of the organ he is thought to have built, are beliefs of the same kind, held in the presence of objective, verifiable evidence to the contrary. The subjective quality of such beliefs as these is independent of objective criteria and, by its very nature, is resistant to objective analysis.



#### 11.1.4 The Equivocal Nature of the Subjective

The powerful influence of subjective values in the regimen of Currency is observed in the following examples of the repeated but unsuccessful attacks it has sustained from analytical science. An ‘experiment’ conducted in the 1960s by Murray Adaskin of the University of Saskatchewan is of interest because it occurred at the time when the Amati quartet was in use there. Adaskin had hoped to demonstrate the difference in sound between rare Cremona violins and home-made amateur ones by playing the same piece of music for a small audience on four instruments: a violin made by Stephen Kolbinson, another made by Eddie Mather, a Saskatchewan gunsmith and amateur violin-maker, a Guarneri owned by Kolbinson, and Adaskin’s own Stradivari. He reported the following unexpected results:

In order to show off the violins I played the Adagio of Bach’s first unaccompanied sonata on each of them and asked the audience to identify the two old instruments [...] and it turned out that the two winners were Eddie and Steven. I will say this: I didn’t cheat, but I tried to play my best on the new violins, because with the rare instruments you couldn’t help but play well on them [...] When I announced the results that most of the audience took their home-made violins to be the Strad and the Guarneri, tears of happiness began to roll down Eddie’s and Steven’s cheeks. This was a great moment in their lives.<sup>23</sup>

String instrument researcher Carleen Maley Hutchins reports similar results after she improved a ‘wretched’ \$5.00 violin and had it played behind a screen along with an ‘excellent Cremona’ instrument -- ‘the two were voted equal in tone by a college music department audience’, although the player knew which was which.<sup>24</sup>

Systematic study had preceded such simple experiments; commercial pressure on the violin-making industry in France at the beginning of the present century resulted in the publication by Chenantais, a violin-maker of Nantes who worked with Le Lyonnais, of *Le Violoniste et le*

*Violon*, a review of practical tests in musical perception. He had found that, such was the hegemony of the antique violin establishment, no serious player in France would purchase a modern violin. He cites the predisposition for Cremona instruments at the time for this bias: 'Subjectively, one seeks qualities in an old instrument, and faults in a new one. Nothing is decided by listening'.<sup>25</sup> In addressing this problem, he reported wide-ranging tests -- *Les Concours de Sonorité de Paris* of 1909, 1910, 1912 and 1921 -- which were conducted stringently and under carefully varied conditions.<sup>26</sup> His results are summarized by bowed-string instrument researcher Emile Leipp who says:

If no hint has been given beforehand it is impossible to distinguish an old instrument from a new one by ear alone. The superior sonority of a Stradivari and others is a myth; there are good and bad instruments in every period - that is all. Sonority depends largely upon the player. The reputation of Stradivari violins is due in great part to the fact that only the gifted virtuosi could buy them, on account of the exorbitant prices demanded for them [...] In the hands of an unskilful violinist even a Stradivari becomes common!<sup>27</sup>

Nevertheless, Beament answers the question of whether such considerations might detract from the value of old instruments by famous makers:

Not at all; as with all such artefacts, the price is determined by supply and demand. They do not make any different sound, and no audience can tell what instrument is being played. But if a player thinks he plays better on such an instrument, he will.<sup>28</sup>

Thus he argues that, although there is no basis to the belief in the superiority of old instruments, the belief does feed back to the player, enhancing his performance and cementing his belief. The complex 'human communication chain of composer-player-instrument-listener' described by Hutchins is responsible for this self-fulfilling quality.<sup>29</sup>

Clearly, the application of subjective phenomena to decision-making processes in the disposition of historic musical instruments cannot withstand objective analysis. The classical

method of negating the influence of subjective data is in the use of blind and double-blind tests.<sup>30</sup> In a blind test the audience is not told which instruments are being played, and in a double-blind test neither the player nor the audience is informed. Thus, bias is removed from judgements and a measure of objectivity results. On the other hand, advanced preparation is essential to the generation of the anticipated results when dealing with subjective phenomena. If the player knows the instrument is superior, the results will bear this out; if the player does not know the identity of the instrument, the results will be equivocal. Tests applied to violins and audiences during *Les Concours de Sonorité de Paris* bore these conclusions out.<sup>31</sup> The documented context of the instrument, and the listener's knowledge of it, become of supreme importance. The contents of the 'set' with which the listener is prepared for the experience dictate the results.

An anecdote on the critical importance of advance preparation of the 'set', and the effect that such predisposition can have, is recorded by the Reverend H.R. Haweis on the occasion when he showed Remenyi a 'very fine copy of a Strad which had deceived many'.<sup>32</sup> Remenyi played the instrument and believed it genuine, although it had actually been made by Lupôt.<sup>33</sup> The knowledge that he was playing upon a genuine Stradivari violin biassed Remenyi's perceptions before he began playing. The sense experience was moderated by context, and it is thus apparent that the nature of the aesthetic experience gained through hearing the instrument is open to deception.

The importance of both primary and secondary sources in providing musical identity is especially high in the Currency regimen, because the materials of fabrication are considered

mutable. A secure provenance provides the necessary foundation for genuine aesthetic musical experiences, in the absence of an identity provided by the original components. The Amati instruments have a secure provenance which includes the primary sources of labels applied by the makers (assuming no substitution), and secondary sources of pedigrees containing certificates and attestations of value and authenticity. The Richard Coates barrel organ contains no physical evidence in the form of maker's signature, labels, or other primary sources, but it is unique in construction and contains primary sources in features that are found in no other instrument. Although its location in the Sharon Temple, and the long association with it, provide a solid context, the association of the instrument with Richard Coates is entirely through such secondary sources as written descriptions and oral tradition.

The association of the Steinway piano with Glenn Gould is much less secure. Because it was treated 'like any other piano',<sup>34</sup> and it had not 'occurred to anyone'<sup>35</sup> to leave it in the state in which Gould used it, all physical association with him was lost. It was therefore necessary to reinforce the belief that subjective attributes of musical instruments have a continuing presence by planning to apply a descriptive plaque to the instrument. It is 'ironical to remove all evidence of Glenn Gould and then put a plaque on it saying it is his',<sup>36</sup> but where no tangible signifier of Gould's presence exists, it is considered necessary to apply one.

#### **11.1.5 The Viability of Currency**

The above selected examples of objective observation made upon subjective phenomena illustrate the durability of these subjective values. In spite of the overwhelming evidence of

the equivocal nature of the subjective, and its apparent openness to deception, the regimen of Currency continues to be viable. The pathetic fallacy and the legendary play an extremely important role in ensuring this continuing viability. The pathetic fallacy shows itself in a 'kind of identity... the Will of the old building', as Ruskin described it,<sup>37</sup> and the 'false appearances [...] entirely unconnected with any real power of character in the object, and only imputed to it by us'.<sup>38</sup> The legendary is encountered in the belief in the genius of the instrument-maker, lost secrets, and arcane knowledge. Without the powerful components that these subjective phenomena provide, the intervention of the artisan would lack a rationale for its actions. Continuity of the aesthetic presence of historic musical instruments is contingent upon the subjective components of musical experience being valued above the materials of fabrication. In the persistence of the 'silent artisan', the regimen of Currency shows extreme confidence.

## 11.2 THE ASSURANCE OF PRESERVATION

Analysis of the case studies of the Kirckman harpsichord, the Bohak clavichord, and the Jadra virginals showed that the actions and their rationales passed from the regimen of Currency through Restitution, and generally came to rest in Preservation. This section places the actions and rationales of Preservation as represented by these three instruments in a wider context, and examines the implications of a policy of silence.

### 11.2.1 The Decision to Retire

In all three case studies, the thrust of action in the most recent stages of the instrument's history was towards retirement from playing status. The instruments were shown to have passed through various stages of use, coming either to a static, silent state or a state of phased withdrawal from use. This action is in line with the more conservative museum policy, which encompasses 'managing the retirement from active service of heritage musical instruments'.<sup>39</sup> Although, in all three cases, the dialectic of 'to play or to preserve' becomes evident during the final stage, the means whereby retirement was planned or debated, and the rationales behind the decisions taken, differ markedly. It will be shown in the following section that preservation of these three keyboard instruments is brought about through three quite distinct mechanisms:

- For an instrument that is still in working condition, action is taken, contrary to policy, to minimize but not curtail use.
- For an instrument for which restoration is contemplated, a lack of hard data upon which to base action dictates preservation.
- For an instrument in a display case, action is prescribed by the overall museum conservation policy.

The Johannes Kirckman harpsichord provides an example of gradual withdrawal from service. At the close of this case study plans were in effect to limit, and eventually to curtail, use of the instrument. It had been actively used until the 1990s, and had already had several

phases of invasive repair and refurbishment in the preceding decades. The need for gradual withdrawal from active service was brought about by evidence of significant structural distortion, and the knowledge that this could only be corrected by dismantlement (see Section 10.3.5)<sup>40</sup>. It was felt that if such treatments continued to be carried out the instrument would be on its way to becoming a 'working replica' of itself.<sup>41</sup> What is significant about this withdrawal of playing state is that it is conducted within a clearly articulated playing policy, and in opposition to it. Because 'playing formed an integral part of Major Fletcher's vision', compromise is evident in a strategy of limiting, but not curtailing, use of the instrument.<sup>42</sup> This case thus epitomises the dilemma of preservation when faced with a contradictory playing policy.

The case of the Bohak clavichord illustrates the way in which preservation had taken place through a lack of data. The instrument had been active since at least the 1920s, but its playing state had been allowed to lapse while in the museum. During its active life, the clavichord had been dismantled and modified to the extent that information on its original disposition had been blurred or lost. Re-thinking of the instrument's state in the discussions that took place from 1976 to 1987 (see Section 10.1.4) centred upon its association with Haydn, and its didactic and political uses. However, interest in the instrument as a signifier of Haydn was not merely visual; it was necessary to have the clavichord in working condition in order to fulfil this role.

It is clear from the extant sources that if information on the original disposition of the Bohak had been available -- either through detective work on the instrument itself, or through

association with other instruments of the same provenance -- there would have been more pressure to restore it to a working state. The restorer would have liked to have had the instrument playable, and regret was expressed that this was not possible. It was only through a lack of information that action was restrained. The significant point is that action in the Restitution regimen depends absolutely upon historical information. Work cannot be done upon an historic instrument without data pertaining to the original disposition, a feature which distinguishes Restitution very clearly from Currency.

Although this case epitomises the dilemma of the desire for musical function (the central tenet of Restitution) when faced with an inoperable state, it highlights very clearly the enormous yield of information that comes about as a result of systematic and thorough analysis during treatment examination. The Bohak clavichord qualifies as an 'authentic ruin'<sup>43</sup>, and is rendered in a state where whatever information it still possesses is made accessible.

The Jadra virginals had been active in the 1950s and 60s, and had undergone several phases of treatment aimed at maintaining playing state. Playing state had then been allowed to lapse because the instrument was housed in a museum that had developed a policy of not playing the instruments in its collections. The curatorial staff considered it obvious that 'we would not be preserving this unique collection were we to make any playable'.<sup>44</sup> In the words of Denzil Wraight, who had examined the instrument in the mid-1970s, it was 'a bit out of place in a museum that had more to do with ethnomusicology than keyboard instruments'.<sup>45</sup>



Nevertheless, the museum policy makes it clear that playing and preservation are considered antithetical.

These three cases show that, in the absence of secure museum policies on conservation, the decision-making process on retirement is highly influenced by individual circumstances.

Retirement from playing status is controlled and driven by a complex web of societal pressures, where the tension between hearing the instrument and preserving it unheard provides the focus.

### **11.2.2 Resource of Information**

In the Preservation regimen action is limited by a central tenet that distinguishes it clearly from the other two regimens: maintenance of the instrument in a non-playing state. To protect the instrument's integrity, intervention is either proscribed, or at least minimized and controlled. Furthermore, the policy of reversibility ensures that any evidence of craftsmanship that may have been necessary during the processes of stabilization and preservation, may be erased in the future without loss of information. The partial treatment of the Bohak clavichord is a prime example of this approach: the instrument was rendered clean and stable, it was left unstrung, and access to the interior was permitted by spot gluing of the soundboard with paper interfaces.<sup>46</sup> The object of the exercise was to make the instrument as accessible as possible for study by presenting openly the evidence of its technical history, while ensuring that any alteration to achieve this could be removed later. With the Kirckman harpsichord, there is a strong advisory against further invasive treatment. This was borne out

in a clear message: when treatment to keep it playable becomes essential, the playing role of the instrument would have to be reassessed. Again, the tendency is away from craft intervention. The Jadra virginals is protected from intervention by policy, but in its non-workable state it still provides a resource of technical information, as witnessed by the study of its materials and disposition carried out by Grant O'Brien.<sup>47</sup>

Preservation as a regimen of care is antithetical to continuously applied craftsmanship. By its documentary approach, and its emphasis on non-intervention, it delimits the intervention with tools that is the mainstay of the craft tradition. Thus, the values of the craft tradition are displaced by concerns for the material welfare of the object, and the technical information that may be elicited from it. Preserving the integrity of the object overrules the values of both Restitution and Currency. As discussed in Section 5.3, this elevation of the discipline away from its craft roots is signified by the cultural distance implied by the titles of Restorer and Conservator.

### **11.2.3 The Objective/Subjective Balance**

The rationale of the Preservation regimen is largely pragmatic; evidence for the yield of objective information is seen in the documentation of both the Jadra virginals and the Bohak clavichord, where information of historical value is derived, not through restoration, but through its antithesis, preservation of status quo. The rationale is evident in the application of scientifically formulated conservation procedures intended to arrest decay, prevent further intervention, and interpret the current state. The meticulous documentation of playing time of

the Kirckman harpsichord is another facet of the pragmatic gathering of data characteristic of Preservation.

As discussed in Section 5.4.2, the emphasis on hard data excludes subjective belief. Thus, the specifically aesthetic attributes of musical instruments, as experienced in the tactile and auditory responses from playing, are considered ephemeral and personal, and are allowed only a limited value. Playing an instrument in order to derive aesthetic experience, rather than hard data, is dismissed. The imbalance between the epistemic and the aesthetic is seen in the opposed values of what Karp describes as the ‘immortal witness’ to past practices, and ‘fleeting musical delight’.<sup>48</sup> In Preservation the former is powerfully authoritative, while the latter is seen to be transitory and personal.

It will be noted that only in the case of the Jadra virginals is there an absence of the aesthetic/pragmatic dialectic; in the cases of the other two instruments, the aesthetic characteristics of the instrument are a source of much debate, and silence is only subscribed to reluctantly. These case studies, one of an instrument that could not be restored through lack of information, and another that was partially retired reluctantly against playing policy, were chosen specifically for the residual dissatisfaction that they exhibit. Preference in these two cases, and in others throughout this work, is for functional playing status, where the aesthetic life of the instrument is maintained and exploited. Preservation curtails the aesthetic life implicit in function, and this is why there is so much regret.

It will be shown later that in the regimen of Restitution the intent of arriving at a definitive, knowledge-based earlier state results in the retrieval of non-objective auditory and tactile responses imputed to represent a phase of past use (see Section 11.3). These responses come to be regarded as equal in value to hard data, and a distinction between the two is not made. This same flaw is evident in the Preservation regimen where arguments are made for the acquisition of data from musical instruments without the need for playing:

This dilemma [restoration versus preservation] could be mitigated if it were realised that musical instruments can often be coaxed into providing useful audible evidence without first being subjected to invasive preparation [...] A great deal of progress could result from making a distinction between 'soundability' and playability, where the former can often be achieved without any prerequisite restoration.<sup>49</sup>

The dilemma could, in fact, only be mitigated if the acquisition of data by scientific methods was understood to be equivalent to the acquisition of experience through playing. The point is that data derived through the application of scientific methods cannot be regarded as an equivalent to authentic experience. The player cannot 'step into a dimension of the cultural landscape from which the music originated' through the medium of science.<sup>50</sup>

This flaw results from the false equivalence of scientific data and subjective sensation. If the object of Restitution were only to re-create the physical disposition of the instrument, then making the originals as 'copyable' as possible, instead of restoring, would suffice.<sup>51</sup>

Producing replicas for the performance of the music of earlier periods would be an adequate substitute if this were the sole aim. However, a replica of Haydn's clavichord (for example) is in no way equivalent to the instrument itself as an aesthetic presence, and could not therefore be used as the medium in an authentic transaction with the past.

### 11.2.4 The Viability of Preservation

The viability of Preservation is assured through the protective role that underpins the profession of conservation. It is significant that in the regimens of Currency and Restitution there has never been an expressed need for a code of ethics; it is only in Preservation that policies for ethical behaviour are systematized and encoded.<sup>52</sup> It is clear from all the foregoing case studies that playing historic musical instruments is the preferred option, and that those who press for their non-functioning state are in a minority, and are thus placed in opposition to societal trends.

As more is learned through scientific methods about the processes of change with time and use, the perception of the evanescence of material objects results in the emergence of a role of altruistic guardianship. This is conservation in its widest sense. The legal definition of a conservator is that of ‘protector, guardian, or keeper’.<sup>53</sup> This sense is transferred to the custodianship of culturally valued objects, where the museum has traditionally provided the venue for guardianship:

It would be entirely in keeping with the very concept of the museum that they [*sic*] should serve as oases where musical instruments can survive indefinitely as our mentors, in a world whose supply of older instruments is otherwise constantly diminishing.<sup>54</sup>

The thrust of Preservation is towards safety, security, and long-term stability. The preventive measures taken to achieve these ends, including strictures on use, stable environmental conditions, and non-interventive treatments, are all intended to promote continuation of the instrument’s physical presence by minimising or eliminating interaction. This is antithetical to the values of both Currency and Restitution, where musical function is a given. It is

especially in opposition to the school of thought mentioned in Section 3.3.2 that advocates playing as a means of preservation.<sup>55</sup> In fact, statistics have been provided to show that in a solo work, a harpsichord key towards the centre of the compass is struck in the region of two thousand times per hour, demonstrating that, by natural wear alone, preservation through playing is a 'dangerous myth'.<sup>56</sup>

Preserving instruments in a non-functioning state is founded upon their value as a diminishing resource. In this respect, the regimen of Preservation shows its links with the larger sphere of cultural activity in which the ideological values of natural conservation prevail. When Grant O'Brien enquires 'why are we destroying evidence on these instruments as though there were an endless supply of them from which to draw information?'<sup>57</sup> he is alluding to the ever-decreasing number of keyboard instruments in essentially unmodified condition.<sup>58</sup> Elements of an appropriation of values from the larger sphere of conservation of the natural world are seen in the following quotation:

Antique musical instruments, especially those retaining substantial historical integrity, are a non-renewable and diminishing cultural resource -- an endangered species. If we allow preservation to be secondary to musical performance, the legacy will be spent, the species extinct.<sup>59</sup>

Musical instruments are equated here with endangered natural species and non-renewable resources, both values of the conservation of nature. The use of such terms amplifies the sense of guardianship resident in non-functional status. The viability of the Preservation regimen is assured through policies of non-intervention, based upon codes of ethical behaviour. Confidence is indicated by the lack of dissonances between the actions and rationales of the Preservation regimen.

### 11.3 THE UNCERTAINTY OF RESTITUTION

Between the active, craftsmanly confidence of Currency and the encoded ethical, scientific behaviour of Preservation lies the regimen of Restitution. This section places the actions and rationales of Restitution represented by the case studies of the second Steinway piano, the Hart House viols, and the Zumpe fortepiano, into a wider context, and examines certain flaws contained in their basic assumptions, which lead to paradoxical thinking.

#### 11.3.1 The Fundamental Flaws

It was shown in Section 11.1 that in the regimen of Currency, where continuity of a musical instrument is ensured through transformation, the original disposition, and the materials of fabrication through which it is realised, are considered of less importance than the non-corporeal essence of the instrument. The subjective values associated with the pathetic fallacy ensure that transformation of the instrument does not detract from its subjective qualities. Emphasis is upon values not associated with the materials and physical disposition of the instrument. However, in the regimen of Restitution there is a profound change of emphasis; the materials of fabrication and their original disposition ideally become essential components in the process of recreating a past musical ambience. It is the presence of the materials, or replacements of them, in a state that would be recognized by an earlier maker or user that provides the *raison d'être* of the regimen. This attitude is epitomized by the statement that '*car restaurer un instrument, c'est préserver ou retrouver sa structure ancienne et son timbre authentique*'.<sup>60</sup>

Because of this profound shift in the emphasis placed upon materials and earlier physical states, certain flaws only incipient in the regimen of Currency become magnified in Restitution. Three fundamental philosophical flaws are identified: the conflict between objective and subjective responses, the ‘genuineness’ of the instrument, and the narrow conceptual boundary that divides the regimens of Restitution and Currency. These aspects are discussed in the following three sections.

### **11.3.2 The Objective/Subjective Conflict**

The thrust behind returning an historic musical instrument to a postulated previous playing state, and of maintaining it in that state, is to explore the music of the period in which it was made and used. This exploration results in both epistemic and non-epistemic aspects of musical experience; it yields information concerning such aspects as construction techniques, materials, tuning, pitch, and playing style, but it also yields sensations arising from human interaction with a genuine historical object. The factual information is contained in objective data derived from the measurement and recording of information. Acoustic data are gained from measurements of pitch and timbre, while physical data are derived from a wide range of measurable functional phenomena, which depend largely upon the type of instrument. All these data can be represented objectively, and used as standards of comparison between instruments.

Subjective sensation, on the other hand, is derived from personal involvement with the instrument. The tone of the instrument, its ‘feel’, and other subjective values experienced



during playing are apprehended within the ‘human communication chain of composer-player-instrument-listener’.<sup>61</sup> In the definition of Restitution outlined in Section 4.4, both the objective values associated with positivistic thinking, and the subjective values associated with authentic experience are present in the musical outcome. The aspects of objective data and subjective feelings arising from treatment and use of historic instruments are explored in the following three sub-sections with the intention of illustrating their fundamental differences.

### *Objective Data*

Physical intervention with the intention of recapturing an earlier state of an historic instrument, and the actions of maintaining it in that state, require specific knowledge. The technical parameters of the chosen historical state must be known with a degree of certainty in order to justify actions. This search for a definitive state shows positivistic thinking because it assumes that enough can be known about an earlier disposition that an attempt to realize it through craft intervention can be contemplated.

The extent and completeness of such knowledge is highly dependent upon the historical period in which the work was done. For example, the ‘normalizing’ done to the Hart House viols in the 1920s to bring them together as a ‘chest of viols’ (Section 9.2.1) shows that the projected attributes of the set of instruments over-rode those of the individual members. The anonymous English alto had the appearance of a converted five-string instrument;<sup>62</sup> the treble attributed to Bergonzi and the bass attributed to Tielke showed extensive repair and alteration; and the provenance of the Flemish treble was also questioned.<sup>63</sup> All these efforts at

inventing a ‘chest of viols’ underscore the positivistic belief in a certain achievable previous state, and result in a defined and irreversible physical alteration. The instruments were transformed in order that an earlier historical disposition could be represented in them.

More information was available for the projected restoration of the Johannes Zumpe fortepiano (Section 9.3.3) as definitive works upon the disposition of early instruments of this kind existed as guides at the time of its treatment.<sup>64</sup> Nevertheless, conjecture was invoked in returning some of the pilots to projected previous positions, and in repositioning the heads of some of the hammers. The restoration itself involved an exploration and elucidation of the original disposition of the instrument (although, because of the inconsistency of adding an anachronistic soundboard, the full disposition was not ultimately reflected in the finished work).

When the trustees of Glenn Gould’s estate stipulated that the mechanical attributes of the Steinway piano sold to the National Library should be preserved as an exemplar of his technique (Section 9.1.4), much immediate information to support this intention was at hand. If the instrument was to be ‘available to researchers and scholars studying the technique of Glenn Gould’, it could only fulfil these criteria if sufficient evidence was believed to exist.<sup>65</sup> The technical specifications of Gould’s particular set-up were, in fact, known with some certainty (see Figure 7). Such data were available from the tuner who had worked regularly with Gould, so these specifications were considered ultimately achievable.

In all these cases, a clearly articulated view of a previous state is essential in justifying and directing craft intervention. The degree to which such interventions are well-founded, or are based upon supposition and conjecture, is less important than the presence of a mental picture of the previous state in the mind of the practitioner before work commences, together with access to the necessary craft operations to bring it about.

### *Subjective Impressions*

Once an historic instrument has been brought into a working state that is thought to represent an earlier period of its existence, it becomes an intermediary, or medium, in leading the player into a conceptual landscape. Restoring to playability centres on this mediating function. However, while the craft intervention of recapturing the earlier state is moderated by specific knowledge, entry into a chosen cultural landscape through playing is clearly not. In her analysis of the interaction of the viewer with the museum object, Ludmilla Jordanova describes the effect of apprehending cultural objects:

Objects are triggers of chains of ideas and images that go far beyond their initial starting point. Feelings about the antiquity, the authenticity, the beauty, the craftsmanship, the poignancy of objects are the stepping stones towards fantasies, which can have aesthetic, historical, macabre or a thousand other attributes. These strings of responses should not be accorded the status of 'knowledge', however, but should be understood in terms of their own distinctive logic.<sup>66</sup>

In semiological terms, the act of playing an instrument of known provenance leads the player into the secondary level of signification, where 'myth is created and consumed'.<sup>67</sup> As discussed in Section 11.1, the response elicited at the secondary level of signification depends upon the triple context.<sup>68</sup> Each player will therefore bring a unique psychological set to the action, making the responses themselves unique and inherently personal, and therefore not amenable either to scientific description or to systematic analysis. Thus, any sensory

experiences resulting from the playing quality of restored musical instruments cannot be 'accorded the status of knowledge'.<sup>69</sup>

### *Conflict*

When both the objective data and the subjective impressions described above are brought to bear upon the treatment of an historic instrument, dissonances arise. As an example of the way in which the objective and the subjective are in conflict, the rationale for restoration of the Zumpe fortepiano focussed upon its musical value: 'it is above all a musical instrument, and its musical qualities cannot be assessed at all unless it is restored to playing condition.'<sup>70</sup> However, once the first phase of treatment was completed, assessment of the piano's musical qualities was assessed by playing the instrument in concert and rendering a written description of the 'singing quality of the treble [...] and the resonant bass'.<sup>71</sup> In alluding to the non-epistemic nature of this assessment, the author himself states that 'it is difficult to describe the tone of an instrument'.<sup>72</sup> This observation is in line with Beament's view that 'every listening test confirms [...] that we are incapable of remembering [the tone of the instrument] over quite short periods'.<sup>73</sup> Thus, an objective assessment of the instrument's musical qualities through human interaction with it was not, and could not be, ultimately achieved.

The conceptual difficulty of maintaining Glenn Gould's piano in the state in which he would have used it provides another example of the conflict between objective and subjective responses (Section 9.1.4). As stated earlier, the specifications of the piano's action were known with some certainty through direct consultation with Gould's tuner. However,

Gould's 'endless, agitated tinkering'<sup>74</sup>, and his tuner's own opinion that 'nothing precise could really be said about the desired specifications'<sup>75</sup> add an indefinable subjective component, making the adjustments a matter of conjecture.<sup>76</sup> As the tuner who later worked on the instrument at the National Library remarked, Gould was 'far more interested in the creative act and its ability to reflect a dynamic and process-oriented conception of reality'.<sup>77</sup> Although this appears to be used as a pretext for deviating from the earlier stated aims in maintaining the action, it nevertheless captures the essentially ineffable quality of what was being attempted, and the impossibility of definitiveness in any resultant mechanical set-up.

A distinct demarcation between acoustic data derived from a musical instrument and personal assessments of its musical value must, therefore, be made. Physical acoustic qualities and perceptual musical qualities represent different kinds of phenomena, and they are not comparable. The former are objective, measurable and constant, while the latter vary with the predisposition of the performer and the circumstances surrounding the performance.

Thus, the first philosophical flaw arises from the coexistence of positivistic thinking in the return of an historic instrument to a conjectured previous state through craft intervention, with the aesthetic, subjective exploration of past musical values as the goal. The intent of arriving at a definitive, knowledge-based earlier state results in the retrieval of non-objective auditory and tactile responses imputed to represent a phase of past use. Yet these responses are regarded as equal in value to hard data, and a distinction between the two is not made. The exploration and reassessment of early musical forms by intervention upon historic

musical instruments therefore contains essential subjective components which are antithetical to the epistemic search for a definitive state.

### 11.3.3 Genuineness

Keyboard instrument conservator John Koster, of The Shrine to Music Museum in South Dakota, refers to the ‘futility of restoration’ of historic musical instruments, focussing his conclusion upon the transformations wrought over time by craft intervention.<sup>78</sup> Although concentrating on the material fabric of the object, his remarks lead into discussion of the second philosophical flaw. This flaw arises from a difficulty in defining the genuineness of a restored musical instrument and, by extension the genuineness of the aesthetic response which is intimately bound up with it. The subjective component, which is defined here as authentic experience, arises from the aesthetic response resulting from the attempt to recapture the past, and it can only be present when the player knows that an instrument with a genuine pedigree is being used. The historic persona of the instrument as a touchstone is much more important in Restitution than in Currency, where the overwhelming evidence of subjectivity and the possibility of deception are understood, accepted, and relegated. To cite the obvious example, players of classic violins are well aware of the transformations that their instruments have undergone, but this information is not allowed to compete with the psychic presence of the object, and the experience it provides. But in the regimen of Restitution the opposite is the case; it is only through the use of a musical instrument with a secure and known pedigree, and in a state that would be recognised by its historical user, that, in the words of keyboard conservator John Watson, the ‘opportunity to step into a dimension

of the cultural landscape from which the music originated' can present itself.<sup>79</sup> Apparently, the amount of material left from the instrument's first-used state is important to these responses.

In discussing the use of reproductions rather than original historic objects in museums, Peter Mann, erstwhile curator of the Science Museum in London, states that curators have 'a feeling that a reproduction is no substitute for the "real thing"'.<sup>80</sup> Cary Karp amplifies this when writing of the earlier years of the early music movement by stating that 'no performance or recording of the music of an earlier period was accepted as being authentic unless it was made on original period instruments'.<sup>81</sup> It is clear that authentic experience cannot be provided by reproductions of early instruments, but must be satisfied with those that are believed to be essentially composed of original material.

The definition of 'original' in terms of historic musical instruments that have undergone changes over a long history of use is elusive. For example, in attempting to define the term 'original' as applied to historic keyboard instruments, Michael Latcham, curator of the musical instrument collection of the Haags Gemeentemuseum, arrives at the following definition:

An instrument or part of it must have been there at the beginning of the life of the instrument to be called original, but may well have changed during the course of its life.<sup>82</sup>

But he goes on to modify, and actually negate, this definition by further stating that:

The unchanging instrument does not exist and the unchanging sound quality of an instrument is mythical. To call an instrument original is to snatch at a process of change in the hope of clutching some intangible eternal truth.<sup>83</sup>

Mimi Waitzman amplifies this point regarding earlier restorations of the keyboard instruments of the Benton Fletcher collection:

Given the scarcity of instruments now found and preserved in an original, or even nearly original condition, from which the restorer could draw reliable information, the results of such restoration, however satisfying to modern ears and fingers, can only ever be judged a qualified success. The fact remains that every restoration, no matter how well-documented or sympathetic, wipes away evidence and makes the original condition, one condition more remote.<sup>84</sup>

From these arguments, the attempt to ‘enter a cultural landscape’ through the medium of an ‘original’ instrument does not rely for its success upon either a clear appreciation of what parts of the instrument date to its conception, an understanding of the restoration procedures it may have undergone, or a realisation of the changes wrought by time. Indeed, ignorance of these factors will facilitate the authentic experience, while knowledge of them will impede and deaden the effect. Thus, it can be argued that the use of an historic instrument as a mediator across what Cherry defines as the ‘gulf separating the here-and-now and the over-and-done-with’, depends essentially upon either an absence of information on what was done, or an unconscious dismissal of the extent of the transformation.<sup>85</sup>

That the experience of authenticity depends upon this absence of information is underlined by Taruskin’s statement (discussed in Section 3.4) that ‘artifacts of past culture [...] are still intact and available in a way that musical artifacts obviously can never be [because] music has to be imaginatively recreated in order to be retrieved’.<sup>86</sup> The Hart House viols are a prime example of imaginative recreation; not only were some instruments altered to better represent their earlier state, but also the whole set was brought together as a ‘chest of viols’ complete with an original 17th-century oak container.



The antithesis of Taruskin's 'artifact of past culture' that is 'still intact and available' would be an instrument that had undergone no change since it was first made and used, thus providing a primary reference to past technology and music practice. Such an instrument is highly unlikely to actually exist because materials change with time, and instruments often become transformed with use. The changing function and social context of the musical instrument ensures transformation. Especially when preserved as a museum object, the musical instrument does not escape transformation of meaning. Saumerez-Smith speaks to the divorce of museum objects from their past context of ownership and use:

Museums are presumed to operate outside the zone in which artefacts change in ownership and epistemological meaning. Anyone who has attended closely to the movement of artefacts will know that the assumption that, in a museum, artefacts are somehow static, safe, and out of the territory in which their meaning and use can be transformed, is demonstrably false.<sup>87</sup>

The meaning being sought through restorative treatment of a musical instrument resides in its original disposition, and like the music to be performed on the instrument, it too must be 'imaginatively recreated in order to be retrieved'.<sup>88</sup> The genuineness of the instrument is therefore always open to question, and with it the genuineness of its emotional impact.

### **11.3.4 The Lapse into Currency**

The third fundamental flaw of Restitution lies in the potential for this regimen to lapse into Currency. Once an instrument has been returned to a projected previous state, it must be *maintained* there. Restoration is highly context specific -- as new information arises on technical details of earlier instrument-making practice, the 'idea' of the earlier state demands continuing revision. Denzil Wraight's views regarding the Jadra viriginals are a case in point.

In 1975 he said that ‘enough is now known about 16th-century instrument building to remove the matter of historical restoration from the sphere of opinion’,<sup>89</sup> yet he revised this opinion considerably 20 years later.<sup>90</sup>

Furthermore, use of the instrument incurs wear and tear so that the materials of fabrication also need continuing repair or replacement. For example, the Kirckman harpsichord underwent at least three phases of treatment, each superimposed upon the preceding one, and each based upon the emergence of further technical information pertaining to its conjectured original state. Thus, the instrument becomes an accretion of ideas and concepts made concrete through succeeding waves of craft intervention. As John Koster has remarked:

New materials replacing deteriorated or missing parts are, at best, copies or reconstructions of the original components. Thus, all restored instruments are, to a certain extent, copies of themselves.<sup>91</sup>

The values of Currency are inherent in this constant process of replacement and renewal, which takes place under protocols of maintenance, thus making the inherent weakness of Restitution as a goal apparent.

An overt example of the lapse into Currency is seen in the treatment of Glenn Gould’s Steinway piano, where a justification for the use of new, heavier hammers, rather than the re-felting of the lighter originals, is made (see Section 9.1.4). The statement that ‘any blind adherence to what are in fact flexible technical parameters is surely contrary to his spirit’<sup>92</sup> speaks of the values of Currency, where the continued maintenance of the instrument through substitution of components is routine. This sentiment is in opposition to that of the vendors, who stipulated that the purchaser ‘shall maintain the Piano in such manner as to preserve, in

so far as is reasonably possible, and for as long a time as is reasonably possible, the unique qualities of the existing action and mechanism of the Piano'.<sup>93</sup> These 'unique qualities', through which Gould's style is characterized, have come to be regarded as 'flexible technical parameters'.

In the treatment of the Zumpe fortepiano, sundry improvements made to the instrument suggest the values of Currency. The insertion of the new soundboard, replacing the original, was motivated by two factors: 'the technical problems of manufacture would have been formidable', while the distortion of the original indicated that 'Zumpe's experiment had not been a success'.<sup>94</sup> Improvement is implicit in both the choice of an easier solution, and in the removal of an 'experiment' that was deemed to have failed. Bracing the underside of the case with aluminium angle to prevent distortion due to string tension is also an action of updating and improvement because no such bracing existed before. In these cases Restitution lapsed into Currency during the actual process of treatment, and changes were not due to a later rethinking resulting from the acquisition of new data.

The Hart House viols had been maintained in working condition since their initial assembly as a 'chest' around the year 1929. During this period it was evident that continual attention had been necessary to keep them in playing order. In their last phase of use it was recognised that, should they be transferred to the custody of the Canada Council, continued maintenance would be an essential factor. It was stipulated that a firm of craftsmen would be employed to this end. Under such a regimen of continued use and craft intervention, the initial values of

the Restitution regimen become overshadowed by the values pertaining to the assurance of continuity.

All three case studies of instruments initially ensconced in the regimen of Restitution show accretive elements of Currency. It is evident that Restitution rests upon a conceptual knife edge; if no further action is taken upon the restored instrument it becomes passively preserved, while if treatment not based upon historical data is done, such as routine maintenance, it has the tendency to lapse into Currency.

### **11.3.5 The Viability of Restitution**

The three fundamental flaws described above represent dissonances between action and rationale, because they result from parallel valuations of unlike quantities. The uncomfortable juxtaposition of objective data, derived through craft intervention, with subjective feelings, must in some way be reconciled. The questionable genuineness of the instrument, again a result of craft intervention, must be reconciled. And, finally, the potential for lapse into Currency, which is also related to work done upon the instrument, must in some way be resolved. How is it possible for an artisan to operate within the regimen of Restitution without discomfort?

Potential discomfort with this parallel valuation of unlike quantities results in the deployment of a psychological strategy that was formalized by Leon Festinger in his 1957 publication, *A Theory of Cognitive Dissonance*, in which the strategies people adopt to reduce the anxiety

produced by a dissonance between cognition and behaviour are analysed. Festinger argues that such strategies are a common phenomenon essential to everyday human social transactions: 'where an opinion must be formed or a decision taken, some dissonance is almost unavoidably created between the cognition of the action taken and those opinions or knowledges which tend to point in a different direction.'<sup>95</sup> According to the theory of cognitive dissonance, there exist inconsistent or 'non-fitting' relations between pairs of cognitive elements where 'the obverse of one element would follow from the other'.<sup>96</sup> For example, in the return of a valued musical instrument to a playing state, the actions require the pragmatic, positivistic drive to arrive at the definitive earlier state of the object, while the rationale for this action is rooted in the apprehension of the aesthetic through authentic experience once treatment is completed. The paired cognitive elements of rationale and action are dissonant, and it therefore becomes necessary to devise a mental strategy to achieve comfort with the decision taken.

Festinger identifies three basic strategies for achieving dissonance reduction: 'behaviour changes, changes of cognition, and circumspect exposure to new information or new opinions'.<sup>97</sup> The first strategy need not be considered here because it is through behaviour that a regimen is defined; if behaviour were to change in response to cognitive dissonance, treatment would be withheld, and thus the action would not fall within the regimen of Restitution.

The third strategy, circumspect exposure to opinions that might prove contradictory, is broadly seen in the division of the historic musical instrument field into opposing factions,

each of which has, at present, clearly defined sets of knowledge and limited interaction. Thus, by working within the regimen of Restitution, the restorer's exposure to contradictory opinions is controlled and channelled. Any change in this state of affairs would imply transfer of activities to another regimen.

If behaviour remains constant, cognition must change to accommodate it. Thus, the second strategy outlined by Festinger is invoked. Evidence for changes in cognition appears in the inconsistency noted when the vendors of Glenn Gould's Steinway piano stipulated during the 1980s the preservation of the unique qualities of the piano through the continuation of playing status. Dismissal of the impact of continual servicing of the mechanism upon its 'unique qualities' prevents physical changes from intruding upon musical results. Dissonance is thus ameliorated by ignoring contradictory knowledge. Later, when far-reaching changes to the action of the instrument were openly criticised in 1996, dissonance between the intent and the action was reduced by dismissing the original intent as 'blind adherence to [...] flexible technical parameters'.<sup>98</sup> The cognition of the importance of these technical parameters is changed to accommodate the action taken.

The same strategy is invoked in assessing the results of replacement of the soundboard of the Zumpe fortepiano, where the musical result is entirely disconnected from the physical disposition on the instrument (see Section 9.3.3). Musical assessment of the piano is carried out in the absence of one of the most critical parts of the instrument that contribute its original tonal character -- the soundboard. For the restorer still to consider meaningful the resultant tonal qualities of the instrument, dissonance arising between the effects of the

materials of fabrication on tone formation and the musical result, must be reduced considerably. When open criticism of replacement of the soundboard appears in writing, this is countered by asking whether it is 'right to condemn it to eternal silence, so that its musical qualities can never be assessed?'<sup>99</sup> Dissonance is again reduced, this time by evoking the misleading argument that the instrument's silence would be a condemnation. Cognition of the impact on musical quality of the new soundboard is changed by comparing its working state favourably to a state of silence.

These examples do not indicate ignorance on the part of the artisans; it is clear that the implications of the work done upon the instruments are well understood, and that the existence of contrary opinions is known. What is shown here is a state of mind brought about by mental weighting in favour of the perceived musical qualities, and against the effects of craft intervention. The phenomenon of the 'silent artisan' introduced in Section 3.4 is evident in this downplaying. (This aspect is discussed further in the next chapter.) In both cases, criticism of the approach is countered by strategies intended to justify the position taken. The intent is to achieve psychological comfort with the chosen regimen through a change of cognition, thus reducing dissonance.

By these means the paradoxes inherent in the regimen are kept in balance, thus maintaining the viability of the regimen. Restitution occupies a central position in the schema described here, by virtue of the means taken to maintain this balance. The regimens on either side exhibit a confidence that has little need of such strategies. The aesthetic presence of historic musical instruments is celebrated in the Currency regimen by focussing upon the subjective

components of musical experience. An equal confidence is seen in the regimen of Preservation, where the focus is upon the objective characteristics of the materials of fabrication, stressing the integrity of the instrument, and disavowing the subjective element. In Restitution, object and subjective collide.

#### **11.4 SYNOPSIS OF DISCUSSION OF THE THREE REGIMENS**

Subjective values are shown to dominate in the regimen of Currency. The pathetic fallacy provides the rationale for the powerful subjective element in this regimen; evidence for the equivocal nature of the subjective, and its apparent openness to deception, does not detract from the viability of the Currency regimen. Craft activity is directed towards maintaining continuity, and the instrument therefore becomes the epitome of ‘a living past bound up with the present’.<sup>100</sup> The confidence exhibited by the activities in this regimen is of key importance, and it is clear that no dissonance appears in the way Currency embraces craft intervention.

In the Preservation regimen objective values dominate. The conservation code of ethics places limits upon intervention, which effectively precludes maintaining playing state, or returning an instrument to a previous state with the intention of ensuring function. The objective aspects of information dominate, relegating craft intervention, and its subjective/aesthetic outcome, to a lower level, in favour of scientific examination and preservation from deterioration. The confidence in the activities of this regimen is evident in its encoded standards of behaviour, which account for the lack of internal dissonance.



Between these two regimens lies Restitution. Three fundamental flaws point to an equivocal relationship between rationales and actions: the uncomfortable juxtaposition of objective data with subjective feelings; the questionable genuineness of the instrument; and the potential for lapse into Currency. Each contributes to a lack of confidence -- a 'philosophical fragility' -- which is not evident in either of the other two regimens. There is much internal dissonance, and it is necessary to deploy strategies to reduce cognitive dissonance in order to reconcile actions of treatment with their rationales. This lack of confidence is a key feature of Restitution, and marks it as being different in nature from either Currency or Preservation.

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21. *ibid.*
22. *ibid.*
23. Lazerevich, p. 204.
24. Hutchins, 'Physics', p. 63.
25. '*Subjectivement dans un ancien on cherche des qualités, dans un moderne des défauts. On ne contrôle jamais par l'audition*', Chenantais, p. xiv.
26. Chenantais, pp. 35-54.
27. Leipp, p. 110.
28. Leipp, p. 238.
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30. Rubin and Babbie, p. 277.
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32. Haweis, *Violins*, pp. 224-225.
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43. Scowronek, p. 29.
44. LaRue, pp. 12-13.
45. Wraight, Denzil, letter to author, 1 January 1996.
46. Barnes, John, letter to Elizabeth Wells, 26 June 1984, records of the Museum of Instruments, Royal College of Music.
47. O'Brien, Grant, *Virginal Measurement Short Form: Jadra Virginals*, Russell Collection of Early Keyboard Instruments, Edinburgh, October 1991.
48. Karp, 'Instruments in Museums', p. 181.
49. Karp and Odell, pp. 6-7.
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51. Karp, 'Instruments in Museums', p. 180.
52. Guild regulations and apprenticeship rules were focussed upon the commercial aspects of trade protection and quality control. The key feature of the conservation ethos is the transfer of moral or ethical obligations from the client to the object.
53. OED, III, p. 766.
54. Karp, 'Conservation', p. 285.
55. See, for example, the instrument playing policies of the City of Cremona, criticized by Waitzman, et al in 'Basic Maintenance', p. 98.

56. Watson, pp. 70-72.

57. O'Brien, 'To play', p. 293.

58. This is not to say that the instruments are assumed to be in their first functioning state, because the effects of time and use cannot be reversed. Reference to unmodified condition simply alludes to the absence of the evidence of irreversible craft activity, so the instruments can therefore be assumed to possess the features they had when new.

59. Watson, p. 82.

60. 'To restore an instrument is to preserve or recapture its earlier structure and its authentic sound', Abundance, p. 10, col. 2.

61. Hutchins, 'Introduction', p. 4.

62. Monical, William, letter to Hart House Music Committee, 2 February 1974, records of Hart House, University of Toronto.

63. *ibid.*

64. For example, the extant stringing of 1768 Zumpe fortepiano in Russell Collection, Russell Collection catalogue, number P2-JZ1768.35.

65. Anon., 'Background Notes', National Library of Canada, file number 168-3-G9-4, Collections - Gould, Glenn - Piano.

66. Jordanova, p. 23.

67. Storey, p. 78.

68. *ibid.*

69. Jordanova, p. 23.

70. Maunder, 'Square Piano', p. 2.

71. Maunder, 'The Earliest', p. 83.

72. *ibid.*

73. Beament, p. 236.

74. Payzant, *Glenn Gould*, p. 109.

75. Edquist, Verne, letter to National Library of Canada, 1983. National Library of Canada, file number 168-3-G9-6 - Collections - G. Gould - piano - maintenance - Vol. 1.

76. A further fundamental dichotomy lies in the issue of adjusting the action to Gould's 'specifications' after he himself had abandoned the instrument.
77. Várdy, Tim, letter to the editor and rejoinder, *Glenn Gould*, 3, 2 (1997), p. 24.
78. Koster, 'Restoration', p. 36.
79. Watson, pp. 74-75.
80. Main, p. 371.
81. Karp, 'Musical Instruments', p. 179.
82. Latcham, p. 50.
83. *ibid.*
84. Waitzman, 'Ancient Musicland', p. 22. The term 'condition' is used throughout this citation, although the term 'state' is preferred in this work (see Section 1.1.2).
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86. Taruskin, *Text and Act*, p. 56.
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88. Taruskin, *Text and Act*, p. 56.
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91. Koster, 'Exact Copy', p. 37.
92. Várdy, Tim, letter to the editor and rejoinder, *Glenn Gould*, 3, 2 (1997), p. 24.
93. National Library of Canada, Ottawa, file number 168-3-G9-4, Collections - Gould, Glenn, - Piano.
94. Maunder, 'Square Piano', p. 4.
95. Festinger, p. 5.
96. Festinger, p. 13.
97. Festinger, p. 31.
98. Várdy, Tim, letter to the editor, *Glenn Gould*, 3, 2 (1997), p. 24.

99. Maunder, 'To the Editor', p. 201.

100. Lowenthal, p. 52.

## CHAPTER TWELVE - THE STRUCTURED REAPPRAISAL

This chapter opens with a summary of the contextual approach that a structured reappraisal of the rationales behind craft actions on historic instruments allows. The way in which the craft action normally associated with the regimen of Currency was co-opted in the search for the historical states of musical instruments is described. The distinct actions of maintenance and restoration are examined, and strategies for allowing continued playing status are introduced. Conclusions are drawn upon the viability of both maintenance and restoration as craft actions. The chapter closes with a discussion of future avenues of research.

### 12.1 A NEW CONTEXTUALISM

This work has sought to reappraise the thinking upon the preservation and use of historic musical instruments. By submitting case studies of typical instruments to critical analysis within the framework developed here, the attitudes of people towards these objects, and the rationales they adopt in their care and treatment, are seen in a fuller social context. As cultural theorist Raymond Williams has put it:

However difficult it may be in practice, we have to try to see the process as a whole, and to relate our particular studies, if not explicitly at least by ultimate reference, to the actual and complex organization.<sup>1</sup>

This examination of the entire context of actions is akin to that proposed by Floris Cohen in his study of the historiography of the scientific revolution. He refers to a ‘new contextualism’ in an attempt to arrive at a terminology that best expresses his relational approach: ‘Here the idea is to consider the body of a scientist’s work as an indissoluble part of its social,

economic, and political context.<sup>2</sup> People's actions upon historic musical instruments can also be viewed in this way; as an indissoluble part of the culture in which the work was done. The roles of individuals in both decision-making processes and treatment actions can be seen in a holistic way, allowing the cycle of unstructured criticism that has fostered the present divisive attitudes to be broken. Thus, as the patterns of thought that motivated past actions become reevaluated, a shift in emphasis results, away from the tension between playing and preservation, and towards mutual understanding of a common role in safeguarding and interpreting musical heritage.

## **12.2 UNCERTAINTY AND CONFIDENCE**

It has been shown through the critical analysis of the nine case studies, and the discussion that followed, that actions on historic musical instruments can be categorized into those that assure continuing musical use, those that reestablish an earlier state, and those that preserve the objects from intervention. When the rationales of these actions were analysed in all three regimens, a distinct contrast was revealed between actions which showed consistency, and actions which indicated dissonance.

It was seen in the Currency regimen that there was no conflict between the treatment of the instruments and the philosophy that underscored this action. Similarly, in the regimen of Preservation, a confident philosophy of action was encountered, maintained by published codes of behaviour. In both cases, no dissonance within the regimen between actions and rationales was evident. However, once the actions and rationales of these two regimens are



exposed to each other, conflict between them becomes very evident. Craft intervention associated with Currency, which resulted in transformation of the artefact, collided with the values of preservation. Thus, it was shown that these two internally consistent regimens -- Currency and Preservation -- were at the opposite sides of a truly bi-polar dialectic. This was seen most revealingly in the dialogue over the marks of use on the keyboard fascia of Glenn Gould's Steinway piano. To those who sought to preserve such marks, they signified patina which led the viewer into levels of subjective contemplation.<sup>3</sup> To those who sought to keep the piano current, the marks were described simply as damage.<sup>4</sup> Each 'reading' was consonant with the values of its regimen, and could therefore be justified by those who proposed it, but there was nevertheless dissonance between these very conflicting readings.

The regimen of Restitution is markedly different in nature from either Currency or Preservation, because no such confidence in action backed by rationale is evident. It was demonstrated in the case studies that actions and rationales in the treatment of historic instruments were, in fact, distinctly dissonant. This 'philosophical fragility' revealed itself in strategies that participants in this regimen deployed in order to reduce or reconcile dissonance. Thus, the rationales for activity in the regimen of Restitution are not as securely based as in the other two regimens. In the following section the historical development of this internal dissonance is traced, and conclusions are drawn about the viability of restoration of historic musical instruments.

### 12.2.1 Co-opting the Craft Tradition

Throughout this work a clear distinction has been made between the craft actions of maintenance and those of restoration. Maintenance takes place in the Currency regimen, and is characterized by craft intervention to keep an already working instrument in a continuing playing state. It is epitomised by Lowenthal's valued attribute of continuity which 'implies a living past bound up with the present, not one exotically different or obsolete'.<sup>5</sup> Thus, maintenance encompasses all actions aimed at keeping an historic instrument current, so that it may be used in present-day performance of music.

Craft action in the Restitution regimen is profoundly different, because maintenance of playing state *must* be preceded by the restoration treatment necessary to make the instrument functional. This accords with Lowenthal's valued attribute of antiquity, the chief use of which is 'to root credentials in the past'.<sup>6</sup> This craft action is defined as restoration, and it involves the intent 'to represent a known earlier state'.<sup>7</sup> Keyboard specialist John Watson alludes to this distinction between restoration and maintenance when he writes that 'the damage caused by playing antique instruments is often preceded by much greater damage wrought by restorers'.<sup>8</sup> Even though the results of two kinds of action he refers to are both termed damage, they actually arise from fundamentally different rationales, and are of an entirely different conceptual nature; one arises from current musical function, while the other comes about as a result of an historical search.

The distinction between these conceptual differences results, in turn, from a specific historical development of the two regimens; the overlay of Currency with Restitution. The nature of the demand for working instruments diverged at the beginning of this century, when the goal of reinstating a lost playing state became added to that of maintaining working condition. It will be remembered that the early periods of several of the case studies showed an indeterminacy in assigning action to a specific regimen. For example, the nature of the work done upon the Bohak clavichord between the years 1911-12 (Section 10.1.3) showed elements of both maintenance and restoration. The Zumpe fortepiano showed similar traits from around the same period (Section 9.3.2). In another case, isolated from contemporary patterns of thought, as late as the 1950s and 60s, modernization of the Coates organ took place in parallel with explorations of its historical attributes (Section 8.1.3).

These three examples show that, as the early music revival was gathering momentum, the existing craft skills of the Currency regimen were enlisted in order for actions to be performed. However, as the rationales of Restitution became more clearly articulated, craft action took on a new focus; it was no longer simply a means to maintain the instrument's currency, but was an action capable of eliciting results of technical, musical and historical interest. This co-opting of the craft tradition into a new endeavour resulted in some elements of that tradition being inevitably transferred to the new regimen. One element that was transferred directly from Currency to Restitution was the craft operations themselves. Initially, the tools, techniques and materials used to keep historic instruments current were identical to those used in the recreation of earlier states. Another element that was initially incorporated comfortably into Restitution was the low emphasis upon documentation of

work. At the beginning of this century, when the early music revival was in its infancy, the generally non-textual nature of the craft tradition is evident in the paucity of restoration interventions consigned to paper. Later, as the Restitution regimen became more distinct from its forebear, there was a tendency to make a record of the process when such interventions provided opportunities for historical and technical research.

The two distinct, and conceptually quite different branching facets of craft intervention -- maintenance and restoration -- have been customarily conflated, thus producing the present simplistic bi-polar model, which this work is intended to deconstruct. The polemic 'to play or to preserve', discussed in the introduction to this work, arises from an interpretation *only* of actions, and not of the underlying rationales. When rationales are not explored and differentiated, the actions become regarded together, in opposition to preservation, and simply as 'intervention with tools'. However, when the significantly different rationales of maintenance and restoration are exposed to critical analysis in the three-regimen model described in this work, a truer situation emerges. Two quite distinct sources of tension become apparent:

- The tension between *restoring* an historic instrument to a working state, or preserving it in a non-working state.
- The tension between *continuing to maintain* an historic instrument already in a working state, or preserving it in a non-working state.

Thus, the previously held view that there exists a single source of tension now loses much of its energy and focus. Through analysis of rationales, it is evident that there is now no longer a single tension between craft action and preservation. Instead, there are now two very different cases to be considered, and two very different conclusions to be drawn. The dialectic of ‘to play or to preserve’ becomes:

- to restore or to preserve
- to maintain or to preserve

These two polarities are examined in the following two sections.

### **12.2.2 To Restore or to Preserve: Change in Cognition**

The question, to restore or to preserve, is a tension existing between the values of the regimens of Restitution and Preservation. However, within the Restitution regimen itself there is *internal* dissonance, which causes the lack of confidence and the ‘philosophical fragility’ noted above. This dissonance is centred on decisions to be taken concerning those instruments no longer in working condition; ones that can be considered derelict, and upon which actions based in positivistic rationales are contemplated. The intent is intervention ‘to represent a known earlier state’.<sup>9</sup> As discussed in the previous section, the tools and techniques of Restitution had been co-opted from those of Currency. This co-opting of the craft tradition into a new endeavour resulted in some values of that tradition coming into conflict. The subjective values associated with Currency did not accord with the parallel

subjective values developing in Restitution. In Currency there was no dissonance resulting from the pathetic fallacy as a rationale for ensuring continuity through craft action. There was a comfortable relationship between craft action in maintaining the instrument's working state, and the appreciation of the musical results. For example, the complete physical transformation of Richard Coates's barrel organ, and the musical results emanating from it, provoked no dissonance because it was being maintained through continuous alteration and improvement.

In Restitution, on the other hand, the subjective values and craft action are not comfortably related. The craft operations are no longer concerned with ensuring continuity, but are employed in the exploration of a past music-historical ambience. The rationale for divining an earlier state through intervention is dissonant with appreciation of the musical results. This is illustrated by the substitution of the soundboard in the Zumpe fortepiano, and the subsequent assessment of the musical results in a presumed historical context. One of the flaws in the Restitution regimen, the objective/subjective conflict discussed in Section 11.3.2, is the direct outcome of this dissonance. Further dissonance between action and rationale was described in Section 11.3.3, where questions were raised over the genuineness of the instrument, and the potential impact of this doubt upon subjective experiences.

It was argued in Section 11.3.5 that the way in which the Restitution regimen continues to be viable is through changes in cognition, whereby the dissonance between 'the cognition of the action taken and those opinions or knowledges which tend to point in a different direction' is reduced.<sup>10</sup> Only by such a strategy, it was argued, could the paired cognitive elements of

actions requiring a pragmatic, positivistic drive to arrive at a definitive earlier state, and the rationales of apprehending the aesthetic through authentic experience, be reconciled.

If the player's subjective experience gained through playing an historic instrument is to remain uncompromised, then the only way in which this can be done is by dismissing the effects of craft intervention. The less one knows, or chooses to know, of the extent of craft intervention on the instrument, the more 'authentic' will be the experience. The 'profound opportunity to step into a dimension of the cultural landscape from which the music originated'<sup>11</sup> relies for its effect on a belief that the instrument is indeed 'the real thing'.

The phenomenon of the silent artisan was introduced in Section 3.4. It exists within the regimen of Currency, where the materials of fabrication are considered mutable, and thus the transformation of the instrument's substance does not detract from, or interfere with, its subjective qualities. This dismissal, or ignorance, of the impact of craft upon musical qualities arose in part from the social stratification of the craft tradition, where the person who performed the work was distanced socially from the one who made use of the results. The user of the instrument had no interest or desire in knowing what had been done, and thus the musical result was untainted by any consideration of the workbench. Although such a distinction, which had its roots in class structure, had largely disappeared as an overt social manifestation by the middle of the present century, its impact persists in the comfortable juxtaposition of craft intervention and musical results that characterises the regimen of Currency. The silent artisan is epitomised in the belief that a violin 'has always, throughout

its nearly 300-year existence, adapted itself over and over again to whoever plays it, like a sponge that has soaked up all that music'.<sup>12</sup>

Although arising in the regimen of Currency, the phenomenon of the silent artisan has very clearly been carried through unconsciously into the Restitution regimen, where it now accounts for the interpretation that craft intervention has a low impact upon the musical quality of the instrument. Cognitive dissonance between an authentic experience of an earlier state, and the impact of craft intervention necessary to achieve that state, is reduced by ignoring the impact the intervention has upon the materials of fabrication and their disposition. Thus, the phenomenon of the silent artisan continues in a regimen that, paradoxically, has the very actions of craft as its focus. Dissonance is reduced by 'changes of cognition, and circumspect exposure to new information or new opinions'.<sup>13</sup>

### **12.2.3 To Maintain: Change in Behaviour**

The dissonance between maintaining instruments in a working state, or retiring them to a non-working state is not internal; the regimens of Currency and Preservation are confidently free of dissonance in the way that work is conducted and justified. The dissonance between maintenance and retirement occurs *between* regimens. It includes all instruments that are being kept current through function, and so also includes those instruments that have been restored and are presently in working condition. Whether the newly-restored instrument should continue to play or be retired is equally a source of contention. But, by including all instruments in playing state, this highlights the first of the three flaws of the Restitution



regimen (described in Section 11.3.4) that, once an instrument has been restored to playing state, the actions associated with continued maintenance tend to lapse into the Currency regimen. As an example, in the case of the Jadra virginals it was said in the 1970s that ‘enough is now known about 16th century instrument building to remove the matter of historical restoration from the sphere of opinion’,<sup>14</sup> yet this opinion was later revised as further information became available. Clearly, the maintenance considered accurate historically in the prescribed stringing of the 1970s, differed from the same treatment prescribed twenty years later. Hence, maintenance is based upon current knowledge, and in its revision over time shows the tendency to lapse from the Restitution regimen into Currency.

The demand to express the full aesthetic presence of historic instruments through playing music on them is clearly a deeply-rooted and long-standing drive; the case studies have shown examples of division and regret resulting from decisions to suspend playing status. The drive to maintain playing status has long antecedents; some of the instruments in the case studies have been kept in working condition for centuries, and many have undergone successive stages of treatment. It is also clear that a conservation consciousness arising within the 20th century has neither displaced this drive, nor submerged it. The drive to maintain the musical voice of historic instruments is encountered in Arnold Dolmetsch’s opinion, that those historic instruments preserved unplayed ‘have been ignorantly deposed from their sovereignty over the emotions’.<sup>15</sup> Although expressed in the early years of this century, this sentiment is still apposite.

Recently, keyboard specialist John Watson has made a plea for a reconciliation between the musical sentiments and the documentary functions of historic organs:

Like all old musical instruments, historic organs have not one but two voices. They have a musical voice, and they have a historical voice [...] Old music on old instruments helps us experience the artistic musical landscape in which our ancestors lived [and] an historic organ is virtually a multi-volume, hand-written, autograph, unabridged, *encyclopedia* of organ making, written by a known, practicing [*sic*], historical organ builder.<sup>16</sup>

This author expresses the clear desire to explore ways of both exploiting and respecting these two voices. This is an argument for a change in behaviour, rather than a change in cognition. If it is decided that musical function is to continue so that subjective, emotional phenomena can be experienced, while still allowing the preservation criteria of science and integrity to be satisfied, the present rigid structures of behaviour, promoting continuity on the one side and integrity on the other, must be altered. By doing this, the values and attitudes implicit in the question 'to maintain or to preserve', will be replaced by values and attitudes appropriate to the question 'under what strictures and in what circumstances may the instrument be played'. Dissonance must be reduced by the first of Festinger's strategies, 'behaviour changes'.<sup>17</sup>

This change in behaviour can only occur if a decision-making structure is already in place. When the potential for use of historic musical instruments is considered on a case-by-case basis, methods of reconciling the conflicting demands of preservation and playability become available. Decision-making protocols have been applied in the business and industrial sectors for some time,<sup>18</sup> and have more recently been examined for their application to heritage collections.<sup>19</sup> Systematic categorization of heritage objects has been instituted as a way of conserving valuable material while still maintaining didactic use of collections. As an example, the Netherlands Ministry of Welfare, Health and Cultural Heritage created the Delta

Plan for the purposes of categorizing values and assigning preservation resources for historic collections.<sup>20</sup> In the musical instrument field, Myers proposed in 1987 a systematic categorization of brasswind instruments as an aid in deciding which could be played, and under what conditions.<sup>21</sup> In this system, five categories of rarity were proposed: unique, rare, historic, common, and replaceable. This categorization was later promoted by the MGC for the drawing up of care plans for all working instruments.<sup>22</sup> However, such a categorization takes no account of the present physical condition of the instrument, or the state in which it presently stands. In order to capture data related to these categories, and to incorporate these data into a decision-making protocol, the following fuller categories have been developed here:

	<b>rarity</b>	<b>risk</b>	<b>state</b>
<b>highest</b>	unique	highest	perfect
	rare	high	original
	historic	medium	used
	common	low	altered
<b>lowest</b>	replaceable	safest	transformed

Figure 20. Categories for assessment of playing potential.

These categories constitute the basis of a decision-making protocol, described below, that can be applied to all historic instruments presently in working condition. The contents of these categories are first described in detail as follows:

**Rarity<sup>23</sup>***unique*

The only example of its type, an example from a famed maker, or with a well-documented association with a particular historic event or personage.

*rare*

One of a few examples of its type, or associated with a particular historic event or personage.

*historic*

Relatively scarce, and having some historical value, but not associated with a particular event or personage.

*common*

One of many extant, but no longer in production.

*replaceable*

One of many extant, and still in production.

**Risk of Damage<sup>24</sup>***highest*

Will certainly be damaged by use; e.g. ivory, glass and ebonite wind instruments, string instruments with deteriorated structures, and season-cracked brass.

*high*

Most woodwind instruments, especially if not played regularly, fragile finishes such as lacquers and varnishes, corroded metals, and mechanically unsound structures.

*medium*

Metal instruments in sound mechanical and chemical condition with moveable parts such as slides and valves, and all wooden instruments in stable condition.

*low*

Metal instruments in sound mechanical condition with no moveable parts, and wooden instruments of solid construction.

*safest*

Recently made instruments of all types in sound condition.

**State***perfect*

No traces of use, no damages or repairs, all components in place, and all parts original.

*excellent*

No damages or repairs, all components in place, all parts original, and obviously used but well maintained.

*good*

Obviously used and with traces of repair and maintenance, and some parts not original, but consistent with earlier state.

*mediocre*

Essentially fulfilling its function, evidence of heavy use, and significant amount of replaced parts.

*poor*

Functioning but in non-original state, with many parts replaced, including those that contribute to sound production.<sup>25</sup>

In order to assess the risks attendant on use of an historic instrument, a numerical value is derived from two overlapping matrices. The first compares risk and rarity:

<b>Risk</b>	highest	high	medium	low	lowest
<b>Rarity</b>					
unique	1	2	3	4	5
rare	2	3	4	5	6
historical	3	4	5	6	7
common	4	5	6	7	8
replaceable	5	6	7	8	9

Figure 21. The risk and rarity matrix.

The numerical value for risk compared with rarity derived from this first matrix is then compared with condition:

<b>Condition</b>	Perfect	Excellent	Good	Mediocre	Poor
<b>Risk/rarity</b>					
1	1	2	3	4	5
2	2	3	4	5	6
3	3	4	5	6	7
4	4	5	6	7	8
5	5	6	7	8	9
6	6	7	8	9	10
7	7	8	9	10	11
8	8	9	10	11	12
9	9	10	11	12	13

Figure 22. The condition and risk/rarity matrix.

The numerical value derived from this comparison provides a key to the extent of use an instrument can sustain. Numerical scorings are interpreted as follows:

1. There are no circumstances under which the instrument should be played.
2. The instrument may only be played under exceptional circumstances and for a limited time to establish such features as tuning, range, temperament, etc. It can only be played under close supervision, and after expert assessment of its condition and the potential yield of information gained from its use. The player must be able to

demonstrate a familiarity with the instrument. A high quality recording should be made of the playing session.

3. The instrument may only be played under exceptional circumstances but for a longer duration, under supervision, and after independent expert assessment of its condition and the information gained from its use. The player must demonstrate a familiarity with the instrument. A high quality recording should be made.
4. The instrument may be played more frequently, under supervision, although duration should still be limited. Such limitation can only be assessed on an individual basis and relies upon accurate and complete documentation of condition before and after use.
5. The instrument may be played more frequently, and with sessions of longer duration.
6. The above requirements may be relaxed slightly in view of the fact that future playing sessions may contribute further information. Expert assessment of the information to be gained is still desirable but not essential.
7. The instrument can be used frequently, and for fairly extended periods. There is less need to establish the value of information gained.
8. Regular use of the instrument can be maintained, although it should still be played under supervision. Players should still be required to demonstrate expertise on the type of instrument.
9. As for the above, but playing need not be supervised.
10. Unsupervised playing is the norm, although regular monitoring should be done.
11. The player does not need to be an expert on the instrument, but must demonstrate a familiarity with historic material.



12. The instrument may be played unsupervised by players unfamiliar with its capabilities.
13. Any instrument with this score should have its presence in a collection of historic instruments reassessed.

It is emphasised that this is a model protocol, and that its successful deployment will depend upon the particular demands of any specific historic musical instrument to which it is applied, and to the particular circumstances under which it is used. A version of this decision-making protocol was first proposed by this author for the Bate Collection of Musical Instruments at Oxford University, the instruments of which are required by the terms of their donation to be played.<sup>26</sup>

Correct application of this protocol requires deep knowledge of the instrument being assessed. Its position within the collection in which it resides, and its relationship with similar instruments elsewhere, must be well understood. The risk of use of the instrument must be explored in terms of its materials of fabrication and their condition, and the state of originality and extent of transformation must be assessed. As an adjunct to the interpretations of the 13 categories derived above, their application can be clarified by the guidelines by Odell and Karp.<sup>27</sup> The guidelines they provide include additional factors to be used in weighing risk, particularly those concerning access to facilities for the technical craft operations of treatment, and those for the extended care of the instrument once its playing state has been reestablished.

There are four potential limitations to the application of decision-making protocols of this kind:

- The status of instruments is arrived at through an assessment of available information. This depends upon accurate and thorough research, not only of the instrument in question, but also of other similar ones elsewhere.
- There is a tendency for categorization to become self-fulfilling. An instrument assigned to a certain category within this system will thereafter be treated in a way that characterises its status. Because a judgement of value is made, there is therefore a temptation to give less attention to instruments that score lower.
- Instruments tend to rise through the categories. An instrument considered replaceable at the present time may not be in the future; due to natural attrition the common becomes less so.
- The protocol will become refined as personnel become familiar with it, and thus earlier decisions will not be as well founded as those made later.

In view of these limitations, it is essential that research on the individual instrument be as thorough as possible, and that categorization decisions be reviewed at regular intervals by specialists with expertise in such areas as organology, musicology, instrument-making, restoration and conservation.

## 12.3 CONCLUSIONS

### 12.3.1 Opposition to Restoration

The resolution of dissonance between craft intervention and musical results *within* the regimen of Restitution can only come about by a change in cognition, because change in behaviour would result in the regimen itself being abandoned. The change in cognition which allows the evocation of subjective musical experience is based upon a structured ignorance of the extent of craft intervention. This is because craft intervention to restore an earlier functioning state has two inconsistent outcomes: the subjective musical results are the experiences of the player alone, and are not communicable; and the objective musical results can only relate to the instruments' present dispositions, not to their historical states. Therefore, it is impossible to assess for historical accuracy the value of any musical data produced, and there is therefore no contribution to the body of music-historical knowledge to be gained from restoration. It is concluded that historic musical instruments are a diminishing resource, and that those in degraded condition should remain so as sources of technical and historical information.

### 12.3.2 Support of Maintenance

Maintaining playing state is no longer simply a 'yes' or 'no' proposition. By utilizing a reasoned and fully conscious decision-making process, and having a wide understanding of the individual instrument's context, state, and condition, the decision to maintain playing

state or to preserve may be given a solid, objective basis. Reduction of the dissonance *between* the regimens of Currency and Preservation is brought about by change in behaviour, not a change in cognition. Although historic musical instruments are a diminishing resource, those already in playing condition, and which meet the kind of organized and systematically applied criteria outlined in the decision-making protocol, can be provided with the opportunity to continue in that role.

#### **12.4 FUTURE RESEARCH**

The analytical structure developed here has been applied only to historic musical instruments. However, as musical instruments share many similar characteristics with other functioning objects, it is clear that this schema could have much wider applications. For example, it might be applied to the problems associated with the maintenance of flying condition in historic aircraft, or the running of steam locomotives, both of which also add legal and mechanical obligations. The polarity between those who wish to exploit the function of these objects, and those who wish to preserve them, is equally as wide as that among personnel in the historic musical instrument field. Future research should concentrate on case studies of objects such as these that have well-documented histories of use and intervention, to ascertain if the schema applied to this work can have wider applications.

A corollary of reserving valuable historic instruments in a non-functioning state as resources of information, is the production of copies. Although some work has been done on defining the parameters for historical copies of musical instruments, the rationales behind the choice

of instruments to copy have not yet been analysed. Future research could identify those historic instruments that have been selected as 'mentors', and analyse the reasons for their choice, the veracity of the resultant copies and, of key importance, the strategies necessary to make the copies perform well in the modern context.

## NOTES

1. Williams, *Revolution*, p. 60.
2. Floris Cohen, p. 229.
3. Byrne, Richard, O. and Weaver, Martin, E., 'Piano scars reflect perfection', *The Ottawa Citizen*, 3 May 1983, p. 8.
4. Anon., untitled article, *Macleans Magazine*, 11 April 1983, p. 33.
5. Lowenthal, p. 52.
6. *ibid.*
7. IIC-CG and CAPC, *Code*, p. 17.
8. Watson, p. 73.
9. IIC-CG and CAPC, *Code*, p. 17.
10. Festinger, p. 5.
11. Watson, pp. 74-75.
12. Beuth, p. 73.
13. Festinger, p. 31.
14. Wraight, Denzil, letter to R.R. Inskeep, 28 August 1975, Pitt Rivers Museum records, Oxford University.
15. Campbell, p. 126.
16. Watson, 'Beyond', p. 35.

17. Festinger, p. 31.
18. Kepner and Tregoe are considered pioneers in the application of decision-making protocols to business practice.
19. Price and Fitzgerald.
20. Netherlands Ministry of Welfare, Health and Cultural Heritage, *Deltaplan. Preservation of Cultural Heritage in the Netherlands*, Fact sheet C-11-E-1992.
21. Myers, 'Conservation', pp. 221-231.
22. *Standards*, p. 65.
23. The rarity category uses Myers's definitions verbatim.
24. The Risk of Damage and State categories are derived from the report to the Bate Collection.
25. The terms perfect, excellent, good, mediocre, and poor relate to state, and not condition. As an illustration, the Amati violin illustrated in Figure 10 would be described as poor when assessed according to these terms, even though it is imminently playable.
26. Barclay, R.L., *Proposal for the Bate Collection*, unpublished report (Ottawa: CCI, July 1997)
27. Odell and Karp, 'Ethics'.

## APPENDIX I - INSTRUMENT INFORMATION

### 1.1 Field Structure

Each case study is preceded by fields containing information about the instrument under study. The instrument information preceding each case study is structured around the fields in the left column of the following table. These field names constitute a refined set derived from those shown in the right column, which were proposed by musical instrument curator Arnold Myers for the cataloguing of general musical instrument collections.<sup>1</sup> Myers originated this system because 'no satisfactory cataloguing standards could be found in the literature' and because he wished it to form the basis of an accepted international standard.<sup>2</sup> His work is used as a source here because it represents a recent and thorough attempt to provide a versatile cataloguing framework for a mixed collection.

<b>This work</b>	<b>Myers's fields</b>
Ownership	-
Classification	CL classification
Acquisition number	AN acquisition number
Name	ON Original name
-	EN English name
Nominal pitch	NP Nominal pitch
-	TS Type of system
Compass	-

Maker	MK Maker
Place of origin	PL Place of origin
-	CO Culture of origin
Date of manufacture	DM Date of making
Inscriptions	IN Inscriptions
Serial number	SN Serial number
Dimensions	OS Overall size
Further information	FM Further information on maker

### *Notes*

- Classification uses the system and terminology originated by Hornbostel and Sachs.<sup>3</sup>
- Nominal Pitch and Compass use the American National Standard where C<sub>4</sub> to B<sub>4</sub> is the octave from middle C to B in the centre of the treble clef. The A which stands at 440Hz in the Helmholtz nomenclature is A<sub>4</sub>.<sup>4</sup>

In adapting the set of fields to better answer the current purpose, the following changes have been made:

- Ownership is added to accommodate the current custodians of the instruments under study.
- Original Name and English Name have been conflated to Name.
- Type of System has been removed as it is specific to the keyword of wind instruments.



- Compass has been added, where necessary, to accommodate keyboard instruments.
- Culture of Origin has been removed because instruments from the Western tradition are common to the whole set of cases under study.
- Overall Dimensions has been expanded to include all relevant dimensions.
- Further Information on Maker has been expanded to include all extra information not represented within the texts of the case studies.

Myers completes his set with a further 17 fields, all of which provide detailed information not germane to this study.<sup>5</sup> The purpose of the set of fields derived for this study is heuristic and explanatory -- the fields provide basic information as an adjunct to the cases under analysis, but are not intended to stand alone as cataloguing information.

## **1.2 The Instruments**

### **Coates Barrel Organ**

#### **Ownership**

Sharon Temple Museum, Sharon, Ontario

#### **Classification**

#### **Organ**

#### **Acquisition/accession number**

956.20.1

#### **Name**

Barrel organ

Nominal pitch

$A_4=440\text{Hz}$

Compass

From left<sup>6</sup>:

ACDEFGA#CDEFG#A#CDEF#G#AGFD#C#BAGFD#C#BAGFD#C#

B♭G

Maker

Richard Coates?

Place of origin

Europe? Canada?

Date of manufacture

1819/20

Inscriptions

Pitch and number in ink on each key, pitch pencilled on ends of keys. Pitch and number in ink on each pipe, reproduced below in pink wax crayon and overlaid with pencil. Pitch written lightly in pencil on the pipeboard, overlaid more heavily in pencil. Traces of paper stop labels. 'The Old Hundred' pencilled below stops on horizontal board.

Serial number

None

Dimensions

Height 236.0cm, width 172.0cm, depth 102.50cm.

### Further information

Four ranks of pipes, all in wood. Diapason with 37 pipes, bourdon with 37 pipes, 4' open with 37 pipes, and 4' open with 22 pipes. Total of 133 pipes.

Worm driven 10 tune barrel mechanism with pins and bridges acting on a key rail. Hand or foot operated bellows.

### Steinway Piano in Rideau Hall

#### Ownership

Rideau Hall, Department of Public Works, Ottawa

#### Classification

Struck string keyboard

#### Acquisition number

210425.048

#### Name

Grand piano

#### Nominal pitch

$A_4=440\text{Hz}$

#### Compass

$A_2 - C_9$ , seven and one third octaves, 88 keys.

#### Maker

Steinway and Sons

#### Place of origin

New York, U.S.A.

Date of manufacture

1934

Inscriptions

Stencilled maker's decal on key facing. Serial number below music desk on cast iron plate.

Serial number

B274981

Dimensions

Height 96.0cm (from floor), width 142.5cm, length 197.5cm

Further information

none

### **Amati String Quartet**

#### **a) Violin (1627)**

Ownership

University of Saskatchewan

Classification

Bowed string

Accession number

None

Name

Violin

Nominal pitch

$A_4=440\text{Hz}$

Maker

Antonius and Hieronymus Amati

Place of origin

Cremona

Date of manufacture

1627

Inscriptions

Printed paper label:

‘Antonius Hieronymus Fr. Amati Cremonen Andreas fil. 1627’

Serial number

None

Dimensions

Body 405mm, upper bouts 163mm , middle 114mm, lower bouts 202mm

Further information

The back of one piece of maple cut on the quarter with medium flames running slightly downwards from left to right. The ribs and scroll of similar wood. The table of two pieces of spruce with even, medium grain. The varnish is of a golden brown colour.<sup>7</sup>

#### **b) Violin (1637)**

Ownership

University of Saskatchewan

## Classification

Bowed string

## Accession number

None

## Name

Violin (known as the Daisy Kennedy Amati)

## Nominal pitch

 $A_4=440\text{Hz}$ 

## Maker

Nicolo Amati

## Place of origin

Cremona

## Date of manufacture

1637

## Inscriptions

Printed paper label:

'Nicoleus Amatus Cremonensus Antoni Nepos 1637'

## Serial number

None

## Dimensions

Body 403mm, upper bouts 160mm, middle bouts 111mm, lower bouts 197mm

**Technical description**

The back of one piece of maple cut on the half slab with medium horizontal flame. The ribs and scroll of similar wood. The table of two pieces of spruce with medium narrow grain. The varnish is of a golden brown colour.<sup>8</sup>

**c) Viola****Ownership**

University of Saskatchewan

**Classification**

Bowed string

**Accession number**

None

**Name**

Viola

**Nominal pitch**

$A_4=440\text{Hz}$

**Maker**

Antonius and Hieronymus Amati

**Place of origin**

Cremona

**Date of manufacture**

1607

**Inscriptions**

Printed paper label:

'Antonius & Hieronymus Fr. Amati Cremoneri Andreas fil. F. 1607'

Serial number

None

Dimensions

Body 423mm, upper bouts 184mm, middle 128mm, lower bouts 233mm

Technical description

The back of one piece of maple cut on the half slab with a painting of the Borghese family crest depicting two cherubs. The ribs and scroll of similar wood. The table of two pieces of spruce with narrow grain in the centre seam area, widening to medium in the flanks. The varnish is of a golden brown colour.<sup>9</sup>

**d) Violoncello**

Ownership

University of Saskatchewan

Classification

Bowed string

Accession number

None

Name

Violoncello

Nominal pitch

A<sub>4</sub>=440Hz



**Maker**

Hieronymus Amati

**Place of origin**

Cremona

**Date of manufacture**

1690

**Inscriptions**

Printed paper label:

‘Hieronymus Amatus Cremonen Nicolai Figlius 1690’

**Serial number**

None

**Dimensions**

Body 921mm, upper bouts 408mm, middle 255mm, lower bouts 489mm

**Technical description**

The back of two pieces of willow cut on the partial slab with mild figure. The Plymouth family seal on the button. The ribs of matching wood. The table of two pieces of spruce with narrow grain in the centre seam area, widening slightly and then narrowing again in the outer flanks. The varnish is of a golden brown colour.<sup>10</sup>

**Steinway Piano in National Library****Ownership**

National Library of Canada

## Classification

Struck string keyboard

## Acquisition number

none

## Name

Grand piano

## Nominal pitch

$A_4=440\text{Hz}$

## Compass

$A_2 - C_9$ , seven and one third octaves, 88 keys.

## Maker

Steinway and Sons

## Place of origin

New York, U.S.A.

## Date of manufacture

1943

## Inscriptions

Stencilled maker's decal on key facing. Serial number below music desk on cast iron plate.

## Serial number

D317194

## Dimensions

Height 960mm (from floor), width 1422mm, length 1975mm

## Further information

none

**The Hart House Viols****a) *Pardessus de viole*, Guersan**

## Ownership

Hart House, University of Toronto

## Classification

Bowed string

## Acquisition/accession number

None

## Name

Six-string *pardessus de viole*

## Nominal pitch

 $A_4=415\text{Hz}$ , tuned one fourth above the treble

## Maker

Louis Guersan

## Place of origin

Paris

## Date of manufacture

1761

## Inscriptions

Paper label inside back under bass side 'c' hole. Number 1231 stamped beside tail peg

## Serial number

None

## Dimensions

Body 328mm, upper bouts 161mm, middle 110mm, lower bouts 196mm

## Further information

Excellent and almost original condition.<sup>11</sup>

**b) *Pardessus de viole*, Bertrand**

## Ownership

Hart House, University of Toronto

## Classification

Bowed string

## Acquisition/accession number

None

## Name

Six-string *pardessus de viole*

## Nominal pitch

A<sub>4</sub>=415Hz, tuned one fourth above the treble

## Maker

Nicolas Bertrand

Place of origin

Paris

Date of manufacture

1725

Inscriptions

Label of G. Saint-George appears inside back, below bass side sound hole.

Number 1231 stamped beside tail peg

Serial number

None

Dimensions

Body 313mm, upper bouts 155mm, middle 116mm, lower bouts 187mm

Further information

Worn finish, crudely revarnished.

**c) Treble viol, Bergonzi (attrib.)**

Ownership

Hart House, University of Toronto

Classification

*Bowed string*

Acquisition/accession number

None

Name

Six-string treble viol

Nominal pitch

$A_4=415\text{Hz}$

Maker

Carlo Bergonzi (attrib.)

Place of origin

Cremona

Date of manufacture

1734

Inscriptions

Facsimile label inside back, below bass side sound hole, of Carlo Bergonzi.

Number 1231 stamped beside tail peg

Serial number

None

Dimensions

Body 331mm, upper bouts 158mm, middle 112mm, lower bouts 187mm

Further information

Double purfling on front, sides and back typically English. Non-original head grafted on.

**d) Treble viol, Anonymous**

Ownership

Hart House, University of Toronto

Classification

Bowed string

Acquisition/accession number

None

Name

Six-string treble viol

Nominal pitch

A<sub>4</sub>=415Hz

Maker

Anonymous

Place of origin

Netherlands?

Date of manufacture

c.1700

Inscriptions

Number 1231 stamped beside tail peg

Serial number

None

Dimensions

Body 345mm, upper bouts 172mm, middle 120mm, lower bouts 204mm

Further information

Excellent condition. Extremely wide neck and fingerboard.

**e) Alto viol, Anonymous**

Ownership

Hart House, University of Toronto

## Classification

Bowed string

## Acquisition/accession number

None

## Name

Six-string alto viol

## Nominal pitch

 $A_4=415\text{Hz}$ 

## Maker

Anonymous

## Place of origin

England?

## Date of manufacture

18th c.

## Inscriptions

Label of G. Saint-George appears inside back, below bass side sound hole.

Number 1231 stamped beside tail peg

## Serial number

None

## Dimensions

Body 424mm, upper bouts 205mm, middle 149mm, lower bouts 250mm

## Further information

Built as an alto (perhaps with five strings) and tuned as a tenor. Renecked.



**f) Bass viol, Tielke (attrib.)**

## Ownership

Hart House, University of Toronto

## Classification

Bowed string

## Acquisition/accession number

None

## Name

Six-string bass viol

## Nominal pitch

 $A_4=415\text{Hz}$ 

## Maker

Joachim Tielke (attrib.)

## Place of origin

Hamburg

## Date of manufacture

e. 18th c.

## Inscriptions

Number 1231 stamped beside tail peg

## Serial number

None

## Dimensions

Body 659mm, upper bouts 307mm, middle 225mm, lower bouts 250mm

## Further information

Table and sides extensively repaired

**Joannes Zumpe Fortepiano**

## Ownership

Emmanuel College, Cambridge University

## Classification

Struck string keyboard

## Acquisition number

none

## Name

Fortepiano

## Nominal pitch

$A_4=415\text{Hz}$

## Compass

$G_3$  to  $F_7$  (no  $G\#_3$ )

## Maker

Johannes Zumpe

## Place of origin

London

## Date of manufacture

1766

**Inscriptions**

Maker's name label on keyboard facia: 'Johannes Zumpe Londini Fecit 1766

Princess Street Hanover Square'

**Serial number**

None

**Dimensions**

Height 146mm, width 450mm, length 1228mm

**Further information**

Four and one half octaves, 58 keys.

**Bohak Clavichord****Ownership**

Royal College of Music Museum of Instruments, London

**Classification**

Struck string keyboard

**Accession number**

RCM 177

**Name**

Clavichord

**Nominal pitch**

A<sub>4</sub>=415Hz

**Compass**

F<sub>2</sub> to F<sub>7</sub>, 61 notes

**Maker**

Johann Bohak?

**Place of origin**

Vienna?

**Date of manufacture**

1794?

**Inscriptions**

Remains of a paper label (inscription not legible) on the bass end of the hitchpin rail. Traces of two sets of numbers on the key levers, one set marking the order of the keys, the other the string gauges.

**Serial number**

None

**Dimensions**

Length 1459mm, width 469mm, depth (including later case capping and baseboard) 167mm, depth (without later case capping and base board) 109mm.

**Jadra Pentagonal Virginals****Ownership**

Pitt Rivers Museum, Oxford

**Classification**

Plucked string keyboard

Accession number

1948.1.β1

Name

Virginals

Nominal pitch

A<sub>4</sub>=415Hz

Compass

G/A<sub>3</sub> to C<sub>7</sub> (C/E<sub>4</sub> to F<sub>8</sub>)

Maker

Marco Jadra

Place of origin

Italy

Date of manufacture

1552

Inscriptions

Name batten: 'MARCI IADRA MDLII'

Back of name batten: 'Restored by Robert Goble, Oxford. 1954'

Paper label: 'Virginal, 1552, made by Marco Jadra in Italy. Formerly owned by Valdrighi, then by Canon F.W. Galpin. Two others by this maker are known, one in the Victoria and Albert Museum, London, and one in the Glinka Museum, Moscow.'

Serial number

None

### Dimensions

Length 1583mm, width 341mm (inside case dimensions)

### Further information

Pentagonal form. Short octave in the bass. Quilled in crow. Brass stringing throughout. C jacks pluck away from the player, f jacks pluck towards player.

No outer case.

## **Kirckman Harpsichord**

### Ownership

Fenton House, The National Trust

### Classification

Plucked keyboard

### Acquisition/accession number

unac

### Name

Harpsichord

### Nominal pitch

$A_4=415\text{Hz}$

### Compass

$F_2$  to  $F_7$ , two manuals.

### Maker

Jacob Kirckman

## Place of origin

London, England

## Date of manufacture

1777

## Inscriptions

Nameboard at rear of keys: 'Jacobus et Abraham Kirckman Londini fecerunt

1777'

## Serial number

None

## Dimensions

Length 2362mm, width 933mm, height 317mm (case).

## Further information

Nag's head swell operated by pedal.

Three registers: upper 8', 4', and lute

## NOTES

1. Myers, 'Cataloguing', pp. 14-28.
2. Myers, 'Cataloguing', p. 14.
3. Von Hornbostel, E.M. and Sachs, C., '*Systematik*'.
4. American Standard Acoustical Terminology, S1. 1-1960 of the USA National Standards Institute (New York: ANSI, 1960)
5. von Hornbostel and Sachs, pp. 22-25.
6. Left and right are proper throughout; i.e. from the perspective of the object, not the viewer.

7. This information is transcribed from the files of the Faculty of Arts and Sciences, University of Saskatchewan.

8. *ibid.*

9. *ibid.*

10. *ibid.*

11. Further Information for all instruments is derived from appraisals in the records of Hart House, University of Toronto.



## APPENDIX II - IRISH HARP RESTORATION REPORTS

### 1 THE HARP OF BRIAN BOROIMHE

# The Harp

OF

# BRIAN BOROIMHE.

RESTORATION OF THE ANCIENT HARP PRESERVED IN THE DUBLIN UNIVERSITY  
MUSEUM, AND COMMONLY CALLED THE HARP OF BRIAN BOROIMHE.

*Published at the Great Exhibition Dublin 1853*

THE tradition\* attached to the original Harp is, that some time after the death of Brian, who was killed at the Battle of Clontarf by the Danes, in 1014, it was, with other Regalia, presented to the Pope in Rome; subsequently a successor to his Holiness sent it as a present to Henry VIII., by whom it was returned to Ireland, to be figured on his coins, in compliment to the musical taste of the Irish. Mr. Curry states, however, that there is some evidence to show that this Harp belonged to Donagh Cairbrech O'Brien, Chief of his name, who died A.D. 1244. In the course of the last century it was given to the University Museum, in a mutilated state. From this imperfect condition, in which the broken bow was fastened down on the sounding-board, so as to cover over three of the string-holes, the form so commonly used in emblematical devices was adopted. The present Director of the Museum, having observed the mutilation, restored the parts of the Harp to their proper position, and supplied the lost portions from analogy. They consist of about five inches of the lower end of the bow and the foot of the Harp; the National Emblem, the Shamrock, which is seen on the original, having two leaves of a scroll pattern, has been carried down in the restoration on the part supplied. The IHS, in one of its early forms, is engraven on the arm. The Harp, when perfect, had thirty strings; and though it is now impossible to prove that it really was the property of Brian Boroimhe, it has not been questioned that it is the oldest known Irish harp. Doubts thrown on its being of the antiquity ascribed to it were mainly founded on very imperfect examination of the instrument, and were suggested by a coat of arms of the O'Neills rudely nailed upon it, and assumed to be a part of the original instrument, but which, it would seem probable, was nailed on by way of ornament, in 1760, when it is said to have been carried in procession in Limerick. On the visit of the Queen to Ireland in 1849, the Harp was exhibited, when Her Majesty said, "This, then, I understand to be the Harp of Ireland." It may be added, that in the Royal Arms carved on the bow of the Dalway Harp, which was made in 1621, this Harp appears to be figured in the quartering for Ireland. In the hope that its graceful form may take the place of the commonly inelegant—often ridiculous—figures introduced into emblematical devices, this restoration was made.

\* See Vallancey's *Collectanea de Rebus Hibernicis*, vol. iv., p. 32.

July, 1853.

R. BALL.  
*Dublin University Museum.*

This illustration, and the one on the next page, are reduced to 80% of their full size.

## 2 THE DALWAY HARP

## RESTORATION OF THE HARP

KNOWN AS THE

**Dalway Harp.***Exhibited at the Great Exhibition in Dublin 1853*

A NOTICE of this fine Instrument appeared in Bunting's Collection of the Ancient Music of Ireland, published about 1809; it is as follows:

"The remaining fragments of this Harp consist of the most important parts: The harmonic curve, or pin-board, and the fore-arm, the sound-board alone being lost. It has long been in the family of Noah Dalway, Esq., of Bellahill, near Carrickfergus, and appears by notices engraved on it to have been made for the House of Fitzgerald of Cluain [Cloyne], whose Arms are handsomely chased on the front of the fore-pillar, surmounted by the Arms of England. Every part of the remaining fragments is covered with inscriptions in Latin and in the Irish character, the former containing mottoes and the name of the maker (Donatus Filius Thadei); the latter the year it was made in (A. D. 1621), and the servants' names of the household. According to an old custom, the instrument is supposed to be animated, and, among other matters, informs us of the names of two harpers who had produced the finest music on it: these were, it seems, Giolla Patrick M'Cridan and Diarmid M'Cridan. By the pins, which remain almost entire, it is found to have contained in the row forty-five strings, besides seven in the centre, probably for unisons to others, making in all fifty-two, and exceeding the common harp by twenty-two strings. In consequence of the sound-board being lost, different attempts to ascertain its scale have been unsuccessful; it contained twenty-four\* strings more than the noted harp called Brian Boromhe's, and in point of workmanship is beyond comparison superior to it, both for the elegance of its crowded ornaments, and for the general execution of those parts on which the correctness of a musical instrument depends. The opposite side is equally beautiful with that of which a delineation is given: the fore-pillar appears to be of fallow, the harmonic curve of yew. The instrument, in truth, deserves the epithet claimed by the inscription on itself: EGO SUM REGINA CITHARARUM.

"MEASUREMENTS:—Bottom of sound-board to extremity of harmonic curve, where it joins fore-pillar, . . . . . 3 feet, 10 inches.

Length of sound-board, in the clear, . . . . .	2	10
Distance of sound-board to fore-pillar, at greatest width, . . . . .	1	3
Longest string, . . . . .	3	4
Shortest, . . . . .	0	2½"

The view and drawing published by Bunting were made by John McCracken, Esq., of Belfast.

We give the Irish inscription, as copied by Eugene Curry, M. R. I. A., from the original harmonic curve, and also his translation thereof:

Isaorpo uob . peomana . ag . Sean . in . Cmaino . gearate . a geluain . an . can . bopona . mura . uob . isaorpo an Semur in Sean, i Muirir bheanach uoba pamanae i Uapmno in Sean buiteip pionu i Sean puam buiteip na beopa i pilip in Uomnaill ba ecaipe an ano in 1621.

Tuag o paupae ba peompaop an . i Semur Ruget ba mapagal eige i Muirir in Tumar i Muirir in Cmain . ba giemanae theipege . peoeae iao po uile . Pilip in Tuag nie epaie ba ealup an . Uolicea in tuag na pafep po pon.

Giollapapapag mba epuam uoba peap ead i apapm uam i ba phagm in buis peap ip pe do bheag . i Uapmno in epuoin malle peap uap po efaheb glafa uo in agupm uom almuen i ga ean uab go noeupm uia gupa oeta poim uile.

"These are they who were servitors to John Fitz Edmond [Fitz Gerald], at Cluain [Cloyne], at the time that I was made, viz.: the Steward there was James Fitz John; and Maurice Walsh was our Superintendent; and Dermot Fitz John, Wine Butler; and John Ruadhan was Beer Butler; and Philip Fitz Donnel was Cook there, Anno Domini 1621.

"Teige O'Ruare was Chamberlain there, and James Russel was House Marshal; and Maurice Fitz Thomas and Maurice Fitz Edmond; these were all discreet attendants upon him. Philip Fitzteige Magrath was Tailor there; Donchuadh Fitz Teige was his Carpenter,—it was he that made me.

"Giollapatrik Mac Cridan was my Musician and Harmonist; and if I could have found a better, him should I have, and Dermot M'Cridan along with him, two highly accomplished men, whom I had to nurse me. And on every one of these, may God have mercy on them all."

Beside the Irish inscription there is, in large Roman letters, near the figure of a queen, at the end of the harmonic curve,—

E & EB SE FIERI FECERUNT  
EGO SUM REGINA CITHARARUM.

Upon the Bow the Royal Arms of England are carved; and it is to be remarked, that the quartering for Ireland exhibits a Harp, which is a good representation of that known as the Harp of Brian Boromhe. Under the Royal Arms are those of Sir John FitzEdmond Fitzgerald, of Cloyne, impaled with those of his wife, the Hon. Ellen Barry, daughter of Viscount Buttevant; he was married in 1611, and died in 1640. The mottoes under the arms appear to be,—VIRESCIT VULNERE VIR-TUS, BOUTEZ EN AVANT. Upon the edge of the Bow were Latin inscriptions (now partly lost); there remain, PLECTO VINCO REGO . . . . . MONSTRA VIROS. MUSICA DEI DONUM. DISTRACTAS SOLATUR MUSICA MENTES. UT SONUS . . . . . TRANSIT SIC GLORIA MUNDI. VINCIT VERITAS. Upon the inside of the Bow, in large letters, is inscribed,—DONATUS FILIUS THADEI ME FECIT, SPES MEA IN DEO.

The figures of animals on the Harmonic Curve are taken from some of the earliest printed books on Natural History, and are cleverly executed. The entire ornamentation displays much skill. The Harp appears to have been painted with brilliant colours, but as they were probably not part of its first adornment, they have not been copied in the Restoration. Through the kindness of Mariott Dalway, Esq., of Bellahill, the present owner of the Harmonic Curve, and of Mrs. Sherrard, of Thornhill, who is possessed of the Bow, the Director of the University Museum was enabled to make accurate restoration of these important parts. The Sound-board is restored from analogy, and the ornament on it is taken from the beautiful pattern on the lower side of the projecting part of the Bow.

\* Twenty-two only. Brian Boromhe's had thirty strings.—R. B.

July, 1853.

R. BALL,  
Dublin University Museum.

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conjectured that some of the pilots which activate the hammers had been repositioned during this same 'modernization'.<sup>169</sup>

There is some confusion as to when the distortion that made the instrument unplayable took place. It was said to be 'practically as sound and perfect as when made' in 1919,<sup>170</sup> yet 'in very bad state of repair' in 1984.<sup>171</sup> Naylor states that he had 'meant to have the piano restored ever since it came to my brother and me in 1934', indicating that at that time it was in poor condition.<sup>172</sup> It is clear that action to maintain the fortepiano's musical quality ceased some time after 1919.

### *Rationales*

Early in this first treatment period there is the suggestion that 'modernization' had taken place some time in the 19th century.<sup>173</sup> Re-locating the pilots which activate the hammers, and re-stringing in two different metals, argues a consciously technical intervention, indicating an attempt to up-date or improve the instrument, thus placing the thinking upon its disposition in the regimen of Currency.

Later in the period, antiquarian interest in the fortepiano is very clearly indicated by its status as an heirloom, and the family tradition of its origin with the horticulturalist Bean in the mid-18th century.<sup>174</sup> Feelings for its authenticity are expressed by the account of the champagne libation that the fortepiano was accorded on its 200th birthday.<sup>175</sup> It is treasured in its role as an exemplar of past tradition, but its functionality is not emphasised. Thus, a degree of passive preservation results.